University of Alberta

NORTHERN ABORIGINAL MOBILITY IN CANADA: THE EFFECT OF ETHNIC AND REGIONAL FACTORS

by

Jennifer Elizabeth Hansen

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Arts

in

Demography

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ABSTRACT

This study examines the effects of economic variables (education, occupation and household income), demographic variables (age, sex and marital union), aboriginal group identification and region on the likelihood of different types of mobility in Canada. It is proposed that aboriginal people with stronger group identification and more defined community boundaries will show a lower propensity to migrate. Logistic regression is used to analyze the incidence of local, intra-provincial and inter-provincial mobility.

Aboriginal people, in general, are more mobile than non-aboriginals, but northern aboriginal people are significantly less likely to move. Small sample sizes preclude conclusiveness, but results suggest that Inuit and status Indians are less likely to move long-distance than Métis and non-status Indians or non-aboriginals. Results support the importance of policy directed at improving educational levels, improving awareness of opportunities in other locations and reducing discrimination to ensure that migration is a viable option for aboriginal people seeking better opportunities. Given the reduced likelihood of migration for northern aboriginal people it is important that economic opportunities be developed in aboriginal communities,

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CHAPTER ONE. INTRODUCTION

The importance of mobility and migration[1] in shaping Canada's population landscape cannot be overstated. Population movements must be carefully tracked in order to ensure adequate and fair distribution of the country's political representation, health and social program resources and economic development. In addition, the examination of mobility for subgroups of the Canadian population is a method of illuminating the specific conditions, needs and dynamics of these groups. This study will focus on the distinctive nature of the mobility experience of northern aboriginal groups.

Most research on migration in Canada addresses east-west population movements between and within the ten provinces (George, 1970; Rosenbaum, 1993). Population movements involving the north have received comparatively little attention. Some studies include the population of the northern territories but merge them with the populations of selected provinces, thus precluding the acquisition of mobility information exclusively for the northern regions (i.e. Finnie, 1998). The omission of northern population movements from mobility studies is often related to the relative size of the migration flows. Compared with other regions of Canada, the northern territories have very small populations and migration flows tend to be small. Despite the small raw numbers of migration, a significant proportion of the total population of the north is involved in population

[1] In this document, mobility is used as a generic term indicating any type of move. Migration is a special type of mobility that often involves longer distances and the crossing of administrative boundaries.

movements and redistribution. This fact has profound implications for social change and the provision of social services to northern Canadians.

A significant proportion of the population of the northern territories is of aboriginal origin. The aboriginal population is one of the most dynamic in Canada, showing substantial shifts in mobility rates in the last fifty years. Before 1950, very few aboriginal people migrated. However, migration to urban areas increased enormously during the 1960s, slowing by the end of the 1980s (Comeau and Santin, 1990). For example, the absolute number of mobile Indians almost doubled between 1966 and 1981. Recently, a trend of increasing in-migration to reserves is apparent (Siggner, 1986). Aboriginal people continue to be very mobile.

Aboriginal people form a unique subgroup of the Canadian population, with a longer history in this land than any other segment of the population. It may be argued that, as a group, they experience extremely strong 'ties to place'. According to anthropological literature, the home region became inextricably interwoven with the livelihood, mythology and worldview of the indigenous inhabitants (Dickason, 1992; Wilson and Urion, 1995). Over time, influences from the mainstream culture have been adopted but attachment to the land remains of primary importance to many aboriginal people (Royal Commission on Aboriginal Peoples, 1996). In some ways, attempts to blend aboriginal people into mainstream culture have served to emphasize differences.

The term 'aboriginal' obscures the distinctiveness of indigenous peoples, who live in a multitude of different physical, social and historical environments. As it is used here, 'aboriginal' encompasses four groups: status Indians, non-status

Indians, Métis and Inuit. Status Indians are those who are registered, or are entitled to be registered, under the *Indian Act.* Most status Indians are members of a recognized Indian band. Non-status Indians may be of exclusively Indian descent. However, for any number of reasons, they were never registered. Originally, the term 'Métis' referred to people of French and Indian descent, but it is now used to denote any mixed-descent aboriginal people who identify themselves as Métis (York, 1989). The Inuit comprise a separate group, culturally and historically. The majority of the Inuit live in the far north, while most non-status Indians reside in the south. The largest concentrations of Métis people can be found in the Prairie Provinces (RCAP, 1996).

Aboriginal people in Canada have different legal statuses and are eligible for varying levels of benefits and support based on this status. The Métis and non-status Indians are considered by the federal government to be the responsibility of the provinces (Peters, 1996). However, the federal government has long held a special relationship with status Indians and the Inuit. Reserves were created to ease the way for white settlement and to assimilate Indians by teaching them to be farmers (York, 1989). This arrangement was originally intended to be temporary, but has taken on a character of permanence over the last century (Buckley, 1992). Status Indians on reserve are entitled to housing, education, health care and social assistance supplied by the federal government. While there is a wide variation in the prosperity on reserves across the country, the standard of living on reserves is generally very low. Some have argued that Indians are worse off than the Inuit or Métis due to their special status (Gerber, 1990). This argument, in part, refers to

the inherent constraints of the reserve system. Through the Indian Act, the federal government exercises significant control over the lives of reserve residents. In addition, Indians remain vulnerable because they do not hold legal title to the reserve land (York, 1989). Although aboriginal people in the north have been the most successful in gaining political influence and culturally appropriate institutions, many argue that they still have little influence over their future (RCAP, 1996). The heterogeneity of these four groups underscores the importance of decomposing aggregate patterns of aboriginal mobility.

Several general theories of migration have been proposed which seek to explain migratory behaviour (Shaw, 1975). Diversity among people and between regions means that these models often incompletely represent the phenomenon of migration. Nurun Nabi and Krishnan (1989) suggest that specific regional or sub-regional models be developed, based on areas with similar socioeconomic, politico-cultural and demographic conditions as well as similar policy requirements. Regional models would help to explain specific cultural and socioeconomic diversities associated with different regions. The microeconomic model is a theory of migration that allows for the inclusion of the effects of cultural orientation on migration decision-making. According to this framework, the individual makes rational evaluations of costs and benefits of migration. Put simply, if the benefits outweigh the costs, the individual will migrate (DaVanzo, 1981). Personal factors, such as cultural norms, influence the individual's perception of costs and benefits, thus affecting the propensity to migrate. Ethnic identity, with its divergent norms, can operate as a constraint on migration by

raising the costs and reducing the benefits of migration. Like ethnic groups, aboriginal people have divergent norms regarding kinship and community (Trovato and Halli, 1983). The residential concentration of aboriginal people in areas such as reserves may function to reinforce these norms. The likelihood of encountering discrimination and obstacles to employment in potential locations also increases the costs of migration. The four groups previously noted vary in levels of cultural cohesion and strength of group membership. Those aboriginal people with a more defined group and a more clearly delineated home territory will experience stronger ties to community and, therefore, greater costs associated with leaving that community.

The aboriginal population of Canada is distinct from the overall Canadian population in several important socio-demographic ways. In general, mortality and fertility levels of this subgroup are higher than the levels of the general Canadian population. Aboriginal populations experience lower life expectancy, higher infant mortality and a rapidly growing population. There is also evidence that aboriginal people differ from the general population in terms of their mobility and migration patterns (Clatworthy, 1996). These differences support the contention that mobility patterns of northern aboriginal people cannot be derived by simply examining the patterns for the total population of the territories. Therefore, mobility and migration of aboriginal people in the north should be examined separately from the overall patterns of each of the territories.

Just as aboriginal migration cannot be directly derived from non-aboriginal mobility, patterns of northern aboriginal mobility cannot be inferred from the

movements of Canadian aboriginal people in general. In addition to the variability between aboriginal and non-aboriginal Canadians, there is significant variation in demographic characteristics among aboriginal peoples, including mobility (Norris, 1996). Several studies of aboriginal migration have pointed to important differences among groups of aboriginal people and between different regions of the country (Clatworthy, 1996; Norris, 1996). Northern aboriginal people are relatively more isolated than aboriginal people in other regions of Canada. Historically, these groups had less intense contact with colonizing Europeans than other groups who were situated closer to regions of heavy European settlement (Zuehlke, 1998). Until around 1940, the main concern of non-aboriginal people was to gain access to the natural resources in the north. After this time, the lives of northern aboriginal people became increasingly influenced by southern technologies and social policies (Billson, 1988). For this reason, they may have experienced different assimilation pressures than other aboriginal groups in the south. Isolation may have a significant effect on the level of cultural cohesion, serving to strengthen and maintain norms with respect to kinship and community ties. In turn, these factors will have a negative effect on the propensity to migrate.

A comprehensive examination of the mobility experience of aboriginal groups should include both regional and ethnic factors. While previous research has provided valuable information on aboriginal mobility patterns, none has systematically examined mobility for different groups of aboriginal people, thus ignoring differences associated with particular groups or specific regions. This study will employ an analytical approach that takes into account the heterogeneity

of aboriginal people, socio-economic and demographic variables and regional variation in an effort to demonstrate the influence of these variables on different types of mobility. As Norris states, we must take into account regional diversity in order to "...understand the dynamics and needs of different aboriginal groups." (1996: 179).

CHAPTER TWO. PROFILE OF THE YUKON AND NORTHWEST TERRITORIES

There are some features of the two northern territories that differ from those of the general Canadian population and from other regions in Canada. The rate of population movement in and out of the both Yukon and Northwest Territories is greater than all other regions in Canada. The economy, history and people of the north are also distinct from the rest of the country. It is in this context that northern aboriginal mobility occurs. This chapter will detail some general characteristics of the two territories and their populations and will then focus more closely on aboriginal populations.

THE LAND

The Yukon Territory makes up about 5% of the land area of Canada and is the eighth largest of the Canadian territories and provinces (Encarta, 1995). Approximately 80% of the territory is wilderness (Zuehlke, 1998) and most of the land area is owned by the federal government (Encarta, 1995). The Northwest Territory[2] includes all territory north of latitude 60° North, except the Yukon Territory and the northernmost parts of Quebec and Newfoundland (Labrador). It is the largest political subdivision in Canada and covers more than a third of the landmass of the country. To the south, the Northwest Territory borders on the provinces of Manitoba, Saskatchewan, Alberta and British Columbia (Encarta, 1995).

[2] 1996 boundaries. In April 1999 the Northwest Territories were partitioned to create the new territory of Nunavut. See Figure 2.1.

The north is a semi-arid region, with decreasing precipitation as one travels northward. The climate is more extreme than that experienced in the southern provinces of Canada. The Yukon boasts the greatest annual temperature range in North America with a mean difference between the highest and lowest temperature month of 40° C. Summer temperatures are only slightly cooler than elsewhere in western Canada. However, winter temperatures tend to be much colder. For example, January average temperature in Dawson is –30.7° C while Edmonton's average is –16.5° C. Even Whitehorse, in the southern part of the Yukon, sees an average temperature of –20.7° C in January (Zuehlke, 1998).

FIGURE 2.1: MAP OF CANADA, 1995

Source: Encarta, 1995

GOVERNMENT

YUKON TERRITORY

The Yukon did not achieve "responsible government" until 1970, when, for the first time, elected representatives, rather than appointed officials, were responsible for daily government concerns. True political independence from the federal government came in 1979 when an elected cabinet was made "...directly responsible to the territorial assembly, rather than to a federally appointed territorial commissioner." (Zuehlke, 1998: 111). The Yukon Legislative Assembly is comprised of 17 elected members and functions in much the same way as a provincial legislature (Yukon Government website). Yukoners are represented federally by one member in Parliament and one in the federal Senate. The position of territorial commissioner survives, but now operates similar to provincial lieutenant governors in the rest of Canada (Zuehlke, 1998).

NORTHWEST TERRITORIES

The Northwest Territory is also governed by elected people who form the Legislative Assembly of the Northwest Territories. It is the only political jurisdiction in Canada that does not operate on a party structure. As well, it is the only Legislative Assembly that follows a system of consensus government, meaning that each member of the Assembly is able to vote as he or she wishes on any issue. Approval of each issue requires agreement by a majority of members (NWT Government website).

THE ROLE OF THE FEDERAL GOVERNMENT

In the Yukon and Northwest Territories, the federal government of Canada has powers that belong to the provinces in other parts of Canada. For example, the

key constitutional document of the Northwest Territory, the *Northwest Territories Act*, is a federal Act of Parliament and the Government of Canada is responsible for any changes to it. As in the rest of Canada, "Indians, and Lands reserved for the Indians" are a federal responsibility under Subsection 91(24) of the 1867 *Constitution Act*. This gives the federal government a considerable role in territorial matters. Apart from some small areas known as 'Commissioner's lands', which are administered by the Government of the Northwest Territory, the Government of Canada controls all Crown lands in the Northwest Territory. This federal control includes water resources, oil, gas and other minerals. Control of the natural resources means that the federal government makes many important decisions affecting the economy of the Northwest Territory (NWT Government website).

LABOUR/UNEMPLOYMENT

The economy of the Yukon is largely resource based and is prone to seasonal employment (Human Resources Development Canada, 1999). The mining industry contributes about $400 million a year to the territorial economy. The benefit from mining is dependent on the number of active mines in the Yukon in a given year as well as metal prices on the world market. Gold mining alone generally contributes approximately $65 million per year and employs about 700 people. In addition to gold, zinc, lead and silver are the most commonly mined metals in the Yukon (Zuehlke, 1998). Human Resources and Development Canada suggests that it is unrealistic to expect that the economy of the Yukon will be anything but seasonal in the future. Mining exploration is primarily a summer

activity and does not improve the job shortage situation in the fall and winter months. The mining industry offers employment only to workers with mining trade skills. Unskilled positions are offered to local Indian people under socio-economic agreements between First Nations and mining companies (HRDC, 1999).

Tourism is considered the second largest industry in the Yukon after mining, bringing in an estimated $100 million per year. Approximately 290,000 tourists visit the Yukon each year, usually in the summer months. The tourism industry has been increasing consistently throughout the 1990s (Zuehlke, 1998). Approximately 800, mostly First Nations, people are employed as fur trappers or processors. This traditional industry is valued at about $275,000 a year. Almost a third of the labour force is employed by federal, territorial or municipal governments (Zuehlke, 1998). However, all levels of government have been subjected to restraint and reduction, further depressing employment levels in the territory (HRDC, 1999).

Year-round, the Yukon tends to experience higher unemployment rates than other areas in Canada (HRDC, 1999). Zuehlke (1998) suggests that unemployment in the Yukon averages about 13%, a rate considerably higher than unemployment in most other parts of Canada.

TABLE 2.1: YUKON AND CANADA UNEMPLOYMENT RATES 1999

MONTH	YUKON 1999	CANADA 1999	DIFFERENCE
February	15.6%	8.5%	7.1%
March	16.4%	8.5%	7.9%
April	16.3%	8.6%	7.7%
May	16.2%	8.2%	8.0%
June	14.6%	7.2%	7.4%
July	11.0%	7.8%	3.2%
August	9.7%	7.8%	1.9%

Source: Yukon Government, http://www.gov.yk.ca

As can be seen in Table 2.1, unemployment rates in the Yukon are significantly higher than the rates for the country as a whole. The difference between the two rates is most striking during the winter and spring months. Human Resources Development Canada reports that almost 75% of employment insurance claims that are received by the Whitehorse office are filed during the fall and winter. In part, this is because businesses that depend on revenue from construction or tourism generally downsize or close for the winter months.

The average annual income in the Yukon, at $695 per week, is higher than the national average ($585) (Zuehlke, 1998). However, HRDC reports that the cost of food, accommodation and many other necessities are higher in the Yukon than in other places in Canada. For example, the cost of living in the Whitehorse is reported to be approximately 23% higher than in Edmonton, Alberta (HRDC, 1999) and 10% higher than in Vancouver, British Columbia. Prices in the rest of the territory are even higher than those in Whitehorse (Zuehlke, 1998).

SPATIAL DISTRIBUTION OF THE POPULATION

According to the 1996 Census, the two territories have the smallest total population of all of Canada's administrative regions. In 1996, the total population of the Yukon was 30,665 while that of the Northwest Territories was 64,125. The population of both the Yukon and Northwest Territories is heavily urbanized. The Yukon has only one city, Whitehorse, that in 1998 had a population of 23, 310. Just under half (42%) of aboriginal people in the Yukon lived in Whitehorse in 1996 (Statistics Canada Daily, 1998). The other two largest communities are Dawson City and Watson Lake, with populations of 2059 and 1652 respectively. The population of the remaining 28 communities in the territory range from a low of 37 in Destruction Bay to a high in Haines Junction with 797 people.

The largest city in the Northwest Territory is Yellowknife, the capital city. Approximately 44% of the people in the Northwest Territory live in Yellowknife and a further 29% of the population lives in the five other regional centres, Inuvik, Norman Wells, Fort Smith, Hay River and Fort Simpson. The remaining 27 communities are home to another 27% of the population (NWT government website).

DEMOGRAPHY

SEX RATIOS

Unlike most regions of Canada, there are more males than females in both the Yukon and Northwest Territory. In 1996, there were 15,880 males and 14,885 females in the Yukon, giving a sex ratio of 107. This means that for every 100 females in the Yukon there were 107 males. In 1996, there were 33,380 males in

the Northwest Territory and 31,020 females, a sex ratio of 108. For Canada as a whole, there were 97 males for every 100 females in 1996.

AGE DISTRIBUTION

The population of the Yukon and Northwest Territory is also younger than that of the rest of Canada.

TABLE 2.2 OLD AGE AND YOUTH DEPENDENCY RATIOS FOR CANADA, YUKON AND NORTHWEST TERRITORY, 1996.

REGION	YOUTH DEPENDENCY PER 1000	OLD AGE DEPENDENCY PER 1000
YUKON	240	44
NORTHWEST TERRITORY	326	30
CANADA	205	94

Source: 1996 Census of Canada.

The dependency ratios indicate that, relative to the population aged 15 to 64, the majority of the dependents in the two territories are youthful. The territories have an old age dependency ratio that is significantly less than that for the country as a whole.

MIGRATION AND THE TERRITORIES

As shown in Table 2.1, the 1996 Census indicates that there is a considerable amount of migration both in and out of each of the two northern territories.

TABLE 2.3 IN MIGRATION AND OUT-MIGRATION: YUKON AND NORTHWEST TERRITORIES, 1991-1996.

PROVINCE OR TERRITORY	YUKON IN-MIGRATION	YUKON OUT-MIGRATION	NORTHWEST TERRITORY IN-MIGRATION	NORTHWEST TERRITORY OUT-MIGRATION
NEWFOUNDLAND	295	20	830	265
PRINCE EDWARD ISLAND	15	0	40	60
NOVA SCOTIA	175	60	510	390
NEW BRUNSWICK	80	30	215	150
QUEBEC	190	90	395	405
ONTARIO	860	370	1660	1295
MANITOBA	340	120	590	395
SASKATCHEWAN	350	285	710	580
ALBERTA	1355	1200	2685	3070
BRITISH COLUMBIA	1980	2950	910	2185
YUKON	-----	-----	155	310
NORTHWEST TERRITORY	310	155	-----	-----
TOTAL	5950	5280	8700	9105
TOTAL POPULATION	30665		64125	

SOURCE: 1996 Census of Canada

Although the number of in-migrants and out-migrants for the Yukon and Northwest Territories is quite small, mobility affects a significant proportion of the total population of the two territories. Out-migrants from the Yukon represent about 17% of the total population of the territory and out-migrants from the Northwest Territory are about 14% of the territory's population.

TABLE 2.4: NET MIGRATION FOR THE YUKON AND NORTHWEST TERRITORIES, 1981 TO 1996.

TERRITORY	NET MIGRATION		
	1991-1996	1986-1991	1981-1986
YUKON	670	780	-2660
NORTHWEST TERRITORIES	-395	-1700	-755

SOURCE: 1996 Census of Canada

Crude net migration for each of these territories is quite low; meaning the gross number of those migrating in and those migrating out is approximately equal. For the period of 1991 to 1996, the Yukon had a crude net migration of +670 while the Northwest Territories had a crude net migration of –395. In other words, the Yukon had a net gain in population while the Northwest Territories had a net loss of population. These two territories had the smallest net migration of anywhere in Canada.

TABLE 2.5: INTER-PROVINCIAL MIGRATION OF POPULATION AGED FIVE AND OVER, CANADA, 1991-1996.

PROVINCE OR TERRITORY	POPULATION (1996)	IN-MIGRANTS	OUT-MIGRANTS	GROSS MIGRATION	TOTAL MIGRATION RATE PER 1000
NEWFOUNDLAND	551,795	16,225	39,465	55,690	101
PRINCE EDWARD ISLAND	134,555	8,945	7,485	16,430	122
NOVA SCOTIA	909,280	47,455	53,905	101,360	112
NEW BRUNSWICK	738,130	34,060	36,025	70,085	95
QUEBEC	7,138,795	68,895	106,345	175,240	25
ONTARIO	10,753,575	194,030	241,041	435,071	41
MANITOBA	1,113,900	43,215	62,595	105,810	95
SASKATCHEWAN	990,240	47,520	67,295	114,815	116
ALBERTA	2,696,825	162,645	159,055	321,700	119
BRITISH COLUMBIA	3,724,500	252,625	102,680	355,305	95
YUKON	30,765	5,955	5,285	11,240	365
NORTHWEST TERRITORY	64,400	8,715	9,110	17,825	278

Source: 1996 Census of Canada

Gross Migration and Total Migration Rates indicate the total volume of migration. A significant turnover of population can have a profound impact on a region, even if the net migration rate is low (Weeks, 1996). The Northwest Territory and the Yukon had relatively small volumes of migration when compared to the other provinces in Canada. However, the volume of migration in the two territories as a proportion of their total populations indicates that these two regions were subject to an enormous amount of population movement. From 1991 to 1996, approximately 365 out of every 1000 people in the Yukon were engaged in inter-provincial migration, either in or out of the territory. For the Northwest Territory the inter-provincial migration rate was also high at 278 per 1000 people. In comparison, Alberta, a province that traditionally experiences a significant

amount of population mobility, had a migration rate of 119 per 1000 people from 1991 to 1996.

The two territories experienced a greater amount of turnover in their populations than any other province in Canada. Despite the fact that the migration streams in and out of these two territories were very small relative to streams to and from other regions, the impact of inter-provincial migration on the two northern territories is far from negligible. Fluctuations of boom and bust cycles of resource based and seasonal industries influence the amount of inter-provincial migration experienced by the two territories.

The aggregate migration data presented here cannot tell us who these migrants are or what proportion is return migrants. As well, high rates of total migration do not mean that all segments of the territorial populations are participating in migration activity equally. In fact, results of the aboriginal Peoples Survey in 1991 indicate that aboriginal people are somewhat less migratory than the general population. Thus, an important question to be addressed is whether aboriginal mobility in the north differs from that of northern non-aboriginal people.

ABORIGINAL POPULATION

In 1996, 799,010 individuals reported that they were North American Indian, Metis or Inuit. These individuals made up approximately 3% of Canada's total population. About 554,000 of these people were North American Indian, about 210,000 were Metis and about 41,000 were Inuit.

The Northwest Territories and the Yukon Territory were home to relatively small proportions of the total Canadian aboriginal population at 5% and 0.8% respectively. However, the aboriginal population made up a large proportion of the total population of each territory. In fact, the highest concentrations of aboriginal people in Canada were in the north. There were 39,690 aboriginal people in the Northwest Territories, making up 62% of its total population. The 6175 aboriginal people in the Yukon Territory represent 20% of its total population. In the rest of the country, the two provinces with the highest proportion of aboriginal people are Manitoba, with 11.7% and Saskatchewan with 11.4% (Statistics Canada Daily, 1998).

North American Indians were about 37% of the aboriginal people who lived in the two territories. However, they were a much larger proportion of the total aboriginal population in the Yukon (90%) than in the Northwest Territories (29%). Metis make up about 10% of the total aboriginal population of each of the territories. In the Yukon, almost all the remainder were North American Indian. The Northwest Territory had the largest Inuit population in Canada at 24,505, about 60% of the total Inuit population (Statistics Canada Daily, 1998).

AGE DISTRIBUTION

Compared with the general population of Canada, the aboriginal population is much more youthful. In 1996, the aboriginal population was, on average, ten years younger than the population of Canada as a whole. The average age of aboriginal people was 25.5 years while the average age of the total Canadian population was 35.4 years. Children under the age of 15 make up 35% of all

aboriginal people compared with 20% of Canada's total population. Compared with the aboriginal population in census metropolitan areas, populations on rural reserves were younger. Children under 15 represent 38% of rural reserve populations and 32% of CMA populations. The proportion of young people in the age group of 15-24 was also greater in the aboriginal population compared with the total Canadian population. This age group made up 18% of all age groups in the aboriginal population in 1996 compared with 13% in the general population. Aboriginal children under the age of 15 made up 75% of all children in this age group in the Northwest Territories and 26% of all children under 15 in the Yukon. There were also significantly fewer aboriginal people in older age groups. Only 4% of the aboriginal population were aged 65 and over compared to 12% in the general population (Statistics Canada Daily, 1998).

SEX RATIOS

Previously it was noted that there are significantly more males than females in both territories. The sex ratios for each of the territories can be decomposed to reveal the balance of males and females for the aboriginal and non-aboriginal components of each population. In the Yukon, the non-aboriginal population consists of 110 males for every 100 females whereas the aboriginal population is composed of 92 males for every 100 females. The non-aboriginal population of the Northwest Territories includes 116 males for every 100 females while the aboriginal population is composed of 102 males for every 100 females. It is the non-aboriginal populations in each of these territories that have significantly more males than females. Resource based industries often involve more males than

females, so this may indicate that much of the population movement in and out of the two territories is related to the economy and involves non-aboriginal people rather than northern aboriginal people.

SPATIAL DISTRIBUTION OF THE POPULATION

Approximately 30% of the aboriginal population in Canada lived in rural reserves in 1996. Another 30% lived in census metropolitan areas. A further 25% lived in urban areas other than CMAs and about 20% in non-reserve rural areas; many of these were isolated northern communities (Statistics Canada Daily, 1998). The aboriginal population of the Northwest Territories is less urbanized than that of the Yukon; only 9% of aboriginal people in the Northwest Territories lived in Yellowknife in 1996 (Statistics Canada Daily, 1998).

LANGUAGE

About a quarter of the aboriginal population reported an aboriginal language as a mother tongue. Approximately 35% reported that they could speak an aboriginal language, indicating that a significant number of people learned the language later in life. However, only 15% reported that they actually spoke an aboriginal language at home. About 29% reported that they could carry on a conversation in an aboriginal language. This varied significantly among different aboriginal groups. Almost 75% of those who identified as Inuit said they were able to converse in Inuktitut, the largest proportion of the three aboriginal groups. About 35% of North American Indians said they could converse in an aboriginal language, as did only 9% of Metis. Conversation ability also varied by age. Almost half of those 55 years and over were able to converse in an aboriginal language

while 30% of 25-34 year olds and only 26% of 5-24 year olds were fluent in an aboriginal language. Fluency was most widespread on Indian reserves and settlements (56%) and lowest in urban areas, both in CMAs at 11% and in other urban areas at 18% (Statistics Canada Daily, 1998).

CHAPTER THREE. THEORETICAL ORIENTATION

MICROECONOMIC FRAMEWORK

A theory of migration decision-making that has received widespread support is the microeconomic model. The underlying assumption of this view is that a migrant behaves in order to maximize economic advantage (Shaw, 1975; Nogle, 1994). This approach proposes that individuals gather an optimal amount of information and behave in such a way as to maximize their own utility (Nogle, 1994). Utility refers to the person's wellbeing in the present or alternative locations. Although utility cannot be directly measured, certain factors are assumed to affect utility in predictable ways. For example, people receive utility from monetary factors such as income. However, utility is also influenced by non-monetary factors (DaVanzo, 1981).

A common framework for the microeconomic approach is the cost benefit model. Two interacting forces, costs and returns, operate in the decision-making process (Nurun Nabi and Krishnan, 1989). Pluses and minuses in the place of origin are weighed against the pluses and minuses of the potential destination. The perception of a given factor as a cost or a benefit is influenced by personal characteristics (DaVanzo, 1981). Speare warned that this should not be interpreted to mean that the costs and benefits of migration are actually calculated. Most people have only vague concepts of costs and benefits including such factors as expected income and the cost of moving (Shaw, 1975).

In the context of this theory, costs and benefits refer to non-monetary, as well as monetary, factors. Costs may include the actual cost of moving belongings,

foregone earnings during the move or during a subsequent period of unemployment. They may also refer to psychic costs such as the stress of moving, leaving friends and family or breaking established ties with a community. Likewise, benefits may be monetary, such as an expected increase in income, or non-monetary, such as better amenities or climate. Some benefits may be seen as both monetary and non-monetary, such as lower housing costs. Since costs and benefits may accrue over time, migration becomes akin to an investment (DaVanzo, 1981). Therefore, migration is "...an investment from which one expects to receive returns sufficient to offset the costs of moving." (Nurun Nabi and Krishnan, 1989: 103).

The value of factors at the place of origin can accrue over time. Location specific capital refers to the factors that tie a person to a particular place. The term includes both tangible and intangible assets whose value would be lost or diminished if the person moved, such as job seniority or community ties. Location specific capital could be influential in the decision to move, since its loss would likely be seen as a cost of moving (DaVanzo, 1981).

The evaluation of costs and benefits requires relevant and accurate information. Theoretically, with perfect information, the potential migrant should always correctly weigh the advantages and disadvantages of moving. However, gathering such information has costs that must be considered as well. These information costs may affect how much information is gathered for the purposes of making the decision. Inadequate information could result in a decision not to move. It could also lead to a faulty decision to move, resulting in goals and

aspirations not being achieved (Lee, 1966). This may be an important factor affecting migration, particularly with regard to return movement (DaVanzo, 1981).

Distance is a well known deterrent to migration and is included in most econometric studies as a measure of transportation costs, earnings foregone while unemployed during a move and psychic costs of moving. The psychic costs associated with distance refer to the stress encountered in living far from support from community, kin and friends. This effect has been tempered somewhat by technologies that facilitate communication, such as telephones and e-mail. However, the constraining influence of distance on migration propensity remains. In this model, distance is inversely related to migration partly because monetary costs, psychic costs and costs associated with the gathering of information tend to increase with increasing distance. A common result of the greater information costs with increased distance is that uncertainty about the place of destination is also more significant. The literature demonstrates strong support for this supposition (Shaw, 1975).

Broadly speaking, a person's stage in the life cycle provides an orientation to the world, including a particular set of attitudes. Different stages of the life cycle make some opportunities more accessible, while restricting others. Demographic variables, such as a person's age, sex and marital status, in combination with factors like family size and home ownership, are considered influences on an individual's migration decision. The set of circumstances particular to a given life stage results in a differential evaluation of the costs and benefits associated with migration (Shaw, 1975). Most life cycle events are

associated with specific, well-defined ages. Some researchers suggest that these variables exert most of their influence at the beginning of a person's life, when individuals tend to be finishing education, forming a family and building a career (Alvarez, 1967).

In summary, the microeconomic model makes three critical assumptions. The first is that utility can be represented by variables, both monetary and non-monetary. The second is that people make conscious, rational decisions. The third assumption is that people make cost-benefit calculations in their decision making process (DaVanzo, 1981). The model acknowledges that personal factors affect the perception of location characteristics as either costs or benefits and thus, people are expected to behave in an individual fashion. However, all individual choices are made within a socio-cultural environment (Nogle, 1994). The model also allows for the incorporation of the presumed effects of a particular cultural orientation and effects of minority status on the evaluation of origin and destination characteristics. People from different cultural, linguistic and social groups may have different perceptions of the costs of migration (Grant and Vanderkamp, 1987). The next section will explore the impact of the normative and socio-cultural environment of ethnic communities on migration.

ETHNIC EFFECTS HYPOTHESIS

In a study of the mobility of selected ethnic groups in Canada between 1966 and 1971, Trovato and Halli (1983) concluded that ethnicity is an important factor in accounting for migration differentials. Aboriginal people in Canada are not 'ethnic minorities' in a strict sense. They would not describe themselves as

such and their legal and historical status as First Peoples sets them apart from ethnic groups of immigrants. However, aboriginal people do have some characteristics in common with ethnic groups. Like ethnic groups, aboriginal people have divergent norms regarding kinship and community that may result in migration propensities that differ from the general population. While there is evidence of some residential concentration of aboriginal people in urban areas, these areas do not approach the institutional completeness of most urban ethnic enclaves. In rural areas, reserve lands function, in a practical sense, to gather many aboriginal people in a settlement pattern that is less dispersed than that found in the general population. Like ethnic groups, aboriginal people often experience difficulties in the larger society and many find themselves in positions low in the status hierarchy of Canadian society. Factors particular to being aboriginal may operate as a constraint by raising the costs and reducing the benefits of migration. Therefore, some of the issues relevant in the study of the migration behaviour of ethnic minorities in Canada may be helpful in indicating what factors may be operating among northern aboriginal people.

A fundamental proposition of the ethnic effect hypothesis is that observed variation in mobility is due to ethnic variables. An ethnic effect encompasses a variety of social, cultural and social-psychological dimensions associated with ethnic social organization that are presumed to negatively affect migration propensities (Trovato and Halli, 1990). As Uhlenberg asserts,

> "The extent of integration into and dependence upon the local community is one social constraint on migration; the potential for assimilation into a new community is another. This leads to the hypothesis that the stronger a person's ties with the local

> community and the more involved one is in a network of family ties the greater the constraints upon potential migration. Also the less cosmopolitan and less able to adjust to new environments, the less likely that motivation for migration will reach actual migration." (Uhlenberg, 1973: 304).

Uhlenberg elaborates further on the critical determinants of ethnic migration saying,

> "When migration is viewed within a social structure, dependence upon local community and potential for assimilation elsewhere appear as critical determinants. Those with (1) deep roots in a community; (2) strong kinship ties in the local area; (3) large investments in the community and (4) an inability to assimilate easily into a new social environment are likely to resist migration." (Uhlenberg, 1973: 309).

Following Mangalam and Schwarzweller (1970) and Parson and Shils (1951), Trovato and Halli (1983) suggest that the causal sources of migration differentials among ethnic groups can be viewed within the framework of three general systems of action: the cultural, structural and personality.

The culture system of action consists of sub-cultural norms that encourage or discourage members of certain ethnic groups to migrate. These may include values concerning social ties and affinities to community, kin and friends (Kobrin and Speare, 1983; Ritchey, 1976; Choldin, 1973). Differential norms may also be expressed as economic dependence on the ethnic community and an inability to assimilate to the larger society.

Migration differentials among ethnic groups are partly explained by group differentials in the level of assimilation to the larger society. The lower the degree of assimilation the lower the propensity to migrate away from the ethnic community and the shorter the distance moved if relocation does occur (Trovato

and Halli, 1990). The ability to assimilate is affected by the level of dissimilarity between the sub-cultural norms and those of the larger society. For example, when compared to other ethnic groups, people of British descent show a greater tendency to move inter-provincially. Their cultural and economic position in Canada is likely an important factor, making adjustment to new localities less stressful than for many other ethnic groups (Trovato and Halli, 1983). Trovato and Halli (1990) also suggest that the greater the degree of institutional completeness of the ethnic community the more ethnic group members interact with others of the same group, resulting in greater levels of ethnic consciousness. Highly associated with ethnic consciousness is the extent to which ethnic sub-cultural norms are observed and reinforced by its members.

The social structure system of action is composed of the institutional structure of society and its systems of rewards and distributions of resources. Historical experience and geographic location in the country may condition the mobility levels of ethnic groups. An example is the reduced mobility of French Canadians. Most of the French population is concentrated in Quebec. The social and ethnic ties represented in this geographic region tend to limit migration away from the area (Simmons, 1977; Rosenbaum, 1993; Shaw, 1985; Trovato and Halli, 1983). Therefore, the concentration of social and ethnic ties in a particular area operates to reduce migration propensities. A second aspect of the social structure system of action is that of conflict and discrimination. This factor refers to the system of stratification imposed by society, a system that may cause insecurities among ethnic and minority groups (Trovato and Halli, 1983). Insecurity associated

with minority group status has been shown to have an effect on demographic processes. For example, it contributes to a distinctive fertility response among ethnic minorities in the United States (Frisbie and Bean, 1978). The ethnic effects hypothesis proposes that experience of discrimination operates as a barrier to migration.

The final system of action is that of the personality, which is conditioned by both the cultural system and the social structure system. It is at this level that the rational valuation of migration as a means to achieve goals takes place (Trovato and Halli, 1983). It is at this level that the two theories operate together. The individual evaluation of costs and benefits occur at this level.

MIGRATION DIFFERENTIALS

Migrants are not a random sample of the population at origin but are a particular selection of this population (Lee, 1966). Previous studies of the migration phenomenon have identified several migration differentials. Evidence suggests that, aside from age, education and occupation, migration differentials are more time- and place-specific than generalizeable. Therefore, we need as much information as possible in context. Contextual information such as movements of major firms or governments to the area, completion of housing for older persons or variation in employment possibilities between areas is essential to fully understanding migration. In general, the search for universal differentials has been largely unsuccessful. However, a small number of factors have been isolated that are highly associated with an individual's propensity to migrate (Shaw, 1975).

AGE

The strongest differential is that of age. Specifically, people in their late teens, twenties and early thirties are more migratory than their counterparts in different age groups (Ritchey, 1976; Greenwood, 1985). Migration varies inversely with age with peak migration occurring between the ages of 25 to 29 years (Shaw, 1975). Because life cycle events tend to occur at predictable ages, this variable is often considered a proxy for life cycle position. The young are able to adapt more easily to new situations. People of this age are close to the beginning of their working life and are more readily disposed to taking advantage of new opportunities. They are also less likely to have significant location specific capital. Older people are more likely to have permanent social and economic ties and so experience higher costs of migration. Age-specific migration rates do not decline uniformly with age in the more industrialized countries, including Canada. In these countries there seems to be a selection of migrants in the age group of 65-75 years, the usual age group at which retirement begins. In fact, this type of movement is generally termed 'retirement migration' (Shaw, 1975).

SEX

A commonly noted migration differential holds that males are more migratory than females. However, this effect is not as strong as that of age and is less uniform across time and space (Shaw, 1975). There is a tendency for sex differentials to narrow among migrants over time as female labour force participation increases in industrialized societies. Sex selectivity changes as societies change and become more industrialized and specialized. Shaw suggests

that the diverse findings on sex selectivity suggest that there is little support for a broad generalization as to which sex predominates in migratory flows (1975). Rather, we should attempt to illuminate how sex selectivity varies with particular socio-cultural, economic and temporal settings.

EDUCATION

Level of educational attainment emerges as a strong differential in migration studies. Marr et al. (1978) suggest that highly educated individuals are not only better informed about opportunities in other locations, but are better able to make use of this information. They also suggest that better educated migrants experience lower psychic costs of migration. Although there does seem to be an effect of education on migration, determining the impact of various levels of educational attainment on migration is more difficult. Simply the number of years of education completed does not take into account the quality of the education or different levels of achievement within that education. A small increment in education may have a significant effect on opportunities in an underdeveloped region. However, the same increment could have no effect on migration in a region with higher levels of education (Shaw, 1975).

OCCUPATION

The supply and demand for unskilled labour can be usually be met within the local labour market but the more highly skilled the occupation the more likely that supply and demand for the skill will extend from the local to regional and even national levels. Therefore, as a society and economy develops and industrializes, migration becomes selective of more specialized occupations. A

relative lack of skills and accompanying low level of education are likely to operate as barriers to equal opportunity to mobility, contributing to the low rates of migration among members of low skilled occupations (Shaw, 1975). Although occupational selectivity seems to be significant in accounting for who migrates in specific socioeconomic contexts, the importance of this factor depends heavily on contrasts between the sending and receiving areas within these contexts. This model works reasonably well for higher occupational and educational groups but for lower skilled and lower educated groups we must rely more on idiosyncratic local factors that do not vary systematically among regions (Shaw, 1975).

MARITAL STATUS

Movers include a higher proportion of married people than single, widowed or divorced. The importance of marital status may lie mainly in the marriage itself; marriage may be an important cause of migration. The event of marriage is a critical stage in the life cycle of the individual. In some societies, marriage implies residential mobility away from the parents' place of residence. Some studies also show that a change in status from single to married is associated with return migration to the place of origin. This is possibly related to a desire to be nearer family and friends (Shaw, 1975).

INCOME

Income is a less stable differential than education but it is still considered a central variable in many studies of migration (Ritchey, 1976; Shaw, 1975; Lee, 1966). In order to finance the costs of migration, an individual must have financial

resources at the place of origin. Therefore, those with a higher income level should be a higher proportion of migrants (DaVanzo, 1981).

CHAPTER FOUR. MODEL OF NORTHERN ABORIGINAL MIGRATION

The purpose of this chapter is to develop a suitable model of northern aboriginal migration and to specify testable hypotheses that derive from this model. The proposed framework builds on the principles of the theories of migration set forth in the previous chapter. A review of the literature on aboriginal migration will be presented, after which recent trends in aboriginal mobility will be reviewed.

LITERATURE REVIEW

Aboriginal people in Canada live in diverse social, economic and geographic environments (Gibbins and Ponting, 1986). This fact makes it difficult to make inclusive statements about them as a group. Studies often focus on one group, usually Indians. It is necessary, therefore, to attempt to determine some broad facts that may apply to the Métis and Inuit as well. Much of the research on aboriginal mobility and migration in Canada dates from the 1970s and early 1980s. There are some limitations inherent in this literature. Since this population is one of the most demographically dynamic in Canada, some of this older research may not be applicable to the contemporary experience of aboriginal people. Furthermore, many of the studies approach the aboriginal mobility experience from a qualitative, anthropological angle. Focusing on community-level analysis makes it difficult to discern broad trends and caution must be exercised when trying to generalize findings to other people in other communities (Trovato et al, 1994). Most of the quantitative studies are descriptive in nature, and do not provide evidence of the causal bases of aboriginal mobility.

There is some evidence that classic migration differentials hold true for aboriginal populations. Migrants from reserves are predominantly young adults (Stanbury, 1975; Graham, 1987; Nagler, 1970). People in this age group tend to be at a life stage that is associated with leaving home to pursue post-secondary education or to find employment (Denton, 1972). Education emerges as a strong determinant of off-reserve migration. Higher educational achievement induces people to migrate by expanding employment opportunities in the larger society (Dosman, 1972; Frideres, 1974). Some authors suggest that more highly educated individuals have little choice but to move, because the lack of economic development on many reserves means that employment opportunities on-reserve are severely limited (Mike, 1986; Monu, 1976; Guillemin, 1975; Gerber, 1984; Frideres, 1988).

Since opportunities for education and skill development are poor or non-existent on many reserves, access to educational opportunities is an important impetus to migrate (Mike, 1986; McCaskill, 1981). Females seem to predominate in off-reserve migration. In 1986, females made up over half of the off-reserve, status Indian population (Larocque and Gauvin, 1989). However, the assumption cannot be made that all these women were, at one point, living on reserve. Legislative changes associated with Bill C-31 resulted in a number of previously unregistered women in off-reserve locations gaining status. Some have argued that, compared to men, aboriginal women tend to attain higher levels of education, and so are more likely to leave the reserve in search of opportunity (Abu-Laban, 1972).

Ethnic factors are cited as important influences on aboriginal migration. Differences in the propensity to migrate are apparent between different groups of aboriginal people, with the Métis most likely and Inuit least likely to move (Norris, 1990). Several authors note that aboriginal people are more mobile when outside their own communities. They suggest that communal values concerning support and interdependence may reduce the tendency to leave the reserve (Stanbury, 1975, Hodge, 1971). The cultural experience of living in their own communities provides aboriginal people with a sense of who they are (Rohner and Rohner, 1971; Guillemin, 1975). In some cases, cultural norms can encourage out-migration. Denton (1972) found that norms encouraging work and independence early in adulthood were a factor that encouraged migration. An expectation that young people will assist their family financially is also associated with out-migration (Monu, 1976).

Geographic concentration and relative isolation may be important factors in migration propensities. Dunning (1964) suggests that northern reserves are more isolated and therefore more traditional in culture and behaviour. The presumption, therefore, is that cultural norms are less diluted among isolated communities than among communities with readier access to the larger society.

The Aboriginal Peoples Survey contains information collected from recent migrants regarding their reasons for migration. Data collected in this survey pertained to the population aged 15 and older that moved to a different community during the 12 months before the survey. The most frequently cited motivations for migration were family-related reasons (32%), to improve housing conditions

(19%), to access or improve employment (18%) and to access schooling or education (11%). The relative importance of these factors differed depending whether the migrant moved to a reserve or off reserve. In-migrants to reserve areas were more likely to cite family-related reasons for migration and less likely to identify improvements in housing or employment as reasons for migration. In contrast, migrants to off reserve locations were more likely to cite employment-related reasons than migrants to reserves. Males migrating to off reserve locations were more likely than females to identify employment concerns as a reason for the move. Females were much more likely than males to report community related factors as a reason for migration (Clatworthy, 1996).

The literature indicates that, for most aboriginal migrants, the experience is less than satisfying. The economic experience of Indian people in off-reserve areas has generally been disappointing. Many migrants experience high unemployment and reliance on social assistance (Buckley, 1992; Gerber, 1990; York, 1989, Krotz, 1980). If they do gain employment, they are less likely than non-aboriginal people to be in permanent, high-income occupations (Dosman, 1972). Economic problems are exacerbated by discrimination. Many employers hold negative stereotypes about aboriginal people and hesitate to hire them (Krotz, 1980). A significant number of aboriginal people also experience housing difficulties due to discrimination by landlords. The experience of hostility is a daily occurrence for some people with some reporting being watched and followed when they enter a store (RCAP, 1996). There have also been allegations of racism in health care (Crossingham, 1987). Separation from communities of origin can cause anxiety

and difficulties with mental health (Vallee, 1972). Low status in the larger society can compound the problem by contributing to feelings of hopelessness (Krotz, 1980). Some studies report higher rates of institutionalization and psychiatric treatment for urban Indians (Fritz and D'Arcy, 1983).

Although some aboriginal people will improve their situation by migrating, the general experience of the aboriginal population indicates that migration tends to compound social and economic problems (Satzewich and Wotherspoon, 1993; Price, 1979).

REVIEW OF ABORIGINAL MOBILITY, 1981-1991

Aboriginal people tend to move to a greater extent than the general population. Those who identify with an aboriginal group had a slightly greater tendency to change their residence than did those who claimed aboriginal ethnic origin. However, the identity population was less inclined to change communities than the origin population (Norris, 1996).

TABLE 4.1: PROPORTION OF RESIDENTIAL AND COMMUNITY MOVERS, 1986 TO 1991.

POPULATION	CHANGED RESIDENCE	CHANGED COMMUNITY
ABORIGINAL ORIGIN	58%	25%
ABORIGINAL IDENTITY	60%	21%
ALL CANADIANS	47%	20%

Source: Norris, 1996: 207.

Almost 60% of Canada's aboriginal identity population moved during the period of 1986 to 1991. This mobility rate was about 1.3 times higher than that of the general Canadian population. However, migrants, or those that reported living

in a different community, made up only 27% of all movers and about 22% of the population aged five and older (Clatworthy, 1996). The migration rate of the Canadian population as a whole was 23.5% during this period so the aboriginal migration rate was somewhat lower.

Most aboriginal migration occurred within rather than between provinces or regions. During the period of 1986 to 1991, almost 77% of the total aboriginal migration was intra-provincial or regional migration. Approximately 26,395 aboriginal individuals moved to a different province or region during the migration interval. These movements did not result in significant changes to the distribution of aboriginal people across provinces or regions (Clatworthy, 1996).

Differences were apparent in mobility and migration among the four main aboriginal groups. Mobility in 1991 was highest for Metis and non-status Indians. Approximately 64% of each of these groups changed residence between 1986 and 1991. Registered Indians had the lowest mobility (57%) and 62% of the Inuit moved during the time period. Migration rates were also highest for non-status Indians at 27% followed by the Metis at 24%. The registered Indian population and the Inuit experienced less migration at 21% and 15% respectively (Norris, 1996). This is consistent with a proposed negative effect of ethnic identification and community participation on migration.

Aboriginal people who live outside the regions of their communities or settlements tend to be more mobile than the general population. In their own communities they are far less transient (Norris, 1996). A study of Inuit mobility based on the 1981 Census of Canada demonstrated that Inuit mobility in the north

is low (10-15%) but is much higher in the south at 38%. The higher mobility rates in general, within and between communities, show the impact of living outside reserves and settlements on the propensity to migrate (Norris, 1996).

Differences in migration propensities between aboriginal and non-aboriginal people were apparent as well. Based on the 1981 Census, the southern aboriginal population had higher mobility rates than non-aboriginal people in the south. In the far north, including the Northwest Territories and Yukon, mobility was high for both groups but northern non-aboriginal people were more mobile (74%) than northern aboriginal people (54%) (Norris, 1996).

Variability in aboriginal migration propensities was evident by region. The Aboriginal Peoples Survey (1991) identified 60,720 individuals (9.7%) of aboriginal identity living in the far north. The mid-north and southern geographical zones claimed about 26% and 64% of the total aboriginal identity population respectively. Only 19% of the total volume of aboriginal migration from 1986 to 1991 occurred between zones. The vast majority of these inter-zonal moves (almost 86%) consisted of flows between the mid-north and the south, resulting in some small population distribution shifts. During the specified period, the far north gained 340 people, the mid-north lost 2550 people while the south zone gained 2210 individuals (Clatworthy, 1996). However, it is clear that there was a measure of stability among the aboriginal population in the north with regard to interzonal and inter-provincial movements.

The largest migration flows in the period of 1986-1991 were between reserves and small urban centres. There were also minor flows between reserves

and within rural areas. However, in terms of net migration flows, reserves gained population from all other areas during the migration interval (Clatworthy, 1996). The proportion of the aboriginal identity population living on reserve totaled approximately 29% and large urban areas claimed an equal share. The identity population living in rural areas and in smaller urban areas accounted for about 21% and 20% respectively.

Compared to status Indians and the Inuit, the non-status Indian and Metis populations are more highly urbanized. About 69% of the non-status Indians and almost 65% of the Metis lived in urban areas in 1991 (Clatworthy, 1996). The most rural of the four main groups of aboriginal people in Canada were the Inuit although about 16% of Inuit lived in smaller urban centres. Most off reserve, registered Indians lived in larger urban centres (Clatworthy, 1996).

DIFFERENTIALS IN ABORIGINAL MIGRATION

Young adults, especially females, are the most mobile of the aboriginal population. Aboriginal women in the age group of 20 to 24 years move and migrate more than their male counterparts. In movement to and from reserves, females also dominate. Factors such as previous discrimination against women in the Indian Act, a high incidence of lone parenthood and the economic conditions on reserves are important influences on the mobility decisions of young aboriginal women (Norris, 1996).

A number of studies have looked at demographic and socioeconomic characteristics of aboriginal migrants compared to non-migrants. Most, however, have concentrated on the migration of aboriginal people to various urban centres.

Clatworthy (1996) summarized the main findings of these studies. First, among migrants to urban areas, females outnumbered males. The stated reasons for migration tended to differ between males and females with males responding more to pull factors such as better employment in the urban area and females more likely to move for family reasons or in response to push factors like social problems in their origin community. Furthermore, the migrant population tended to be younger than the non-migrant population and included many families in the earlier stages of family development. Aboriginal migrants also tended to have more formal education and were more likely to be active in the labour market than non-migrants. Data from the Aboriginal Peoples Survey (1991) is consistent with the conclusions of this earlier research. In the interval of 1986 to 1991 the probability of migrating was highest for the population age 15 to 54 years and was higher for females in all age groups (Clatworthy, 1996). Younger families with fewer children were more common among migrants than non-migrants. The migrant population also included a larger proportion of lone parent families, especially in flows to larger urban areas (Clatworthy, 1996).

The 1991 Canadian Census data indicated that migrants were more likely than non-migrants to be attending school (27% versus 21%), indicating that moving for the purposes of school attendance was a significant reason for aboriginal migration. This higher incidence of school attendance among migrants was not simply due to age differences between migrants and non-migrants. Higher levels of school attendance were most characteristic of migrants aged 25 years or older. The pattern of higher rates of school attendance for migrants than non-

migrants held for all aboriginal identity groups. However, attendance rates of migrants varied among identity groups from a high of 18% for registered Indian migrants to a low of 7% for Inuit migrants.

The migrant population also had considerably higher levels of formal education than the non-migrant population. Migrants to off reserve destinations, especially larger urban centres, tended to have higher education than migrants to reserves. Thus, the migration process may serve to widen the differences in educational levels between on and off reserve populations. Higher education levels were most common among non-status Indian migrants at 67%. Individuals with higher levels of education accounted for 56% of Metis migrants, 51% of registered Indian and 47% of Inuit migrants (Clatworthy, 1996).

Labour force participation rates tended to be higher among migrants than among non-migrants. This was true for youth in the ages of 15 to 24 years as well as for older individuals over 25 years of age. These higher rates of employment were reported for both males and females among all identity groups and for all residence locations. This suggests that employment considerations were an important motivating factor in aboriginal migration (Clatworthy, 1996).

Despite the fact that labour force data indicates that aboriginal migrants were more likely than non-migrants to be actively participating in the labour force, the unemployment rates of the migrant population tended to be higher than that for non-migrants. Certain subgroups of the migrant population tended to have much higher rates of unemployment than their non-migrant counterparts. Individuals over 25 years of age, females and males migrating to reserves or to urban areas

were included in these higher unemployment subgroups. Two migrant subgroups, youth between 15 and 24 years of age and males living in rural areas, experienced significantly lower unemployment rates. Levels of unemployment for the aboriginal population were highest among youth, both on reserve and in urban areas (Clatworthy, 1996). In terms of employment earnings, migrants reported higher average income than non-migrants, with the exception of non-status Indians. This is consistent with the fact that most migrants had a higher level of education than non-migrants. Although migrants may have had difficulty finding a job, if they did work they tended to have higher earnings than non-migrants (Clatworthy, 1996).

HYPOTHESES

A number of mechanisms may be included in an explanation of an effect of ethnicity on mobility. The determination of what these factors might be requires more information than is contained in available data. A detailed mobility survey would be required to specify more precisely how these different factors influence the evaluation of costs and benefits of migration. However, census micro-data can provide sufficient information to test the hypothesis that the movement patterns of aboriginal people in the north are unique. So far, it has been proposed that mobility and migration propensities of northern aboriginal people will differ from those of northern non-aboriginal people and those of southern aboriginal and non-aboriginal people. Based on the model of aboriginal migration, the following hypotheses have been formulated.

1) AGE.

People in their late teens, twenties and early thirties are more migratory than their counterparts in different age groups. Younger people may be more able to adapt to new circumstances and may be more inclined to take advantage of new opportunities in other locales. Therefore, it is expected that the incidence of all types of movement will decline with increasing age.

2) SEX.

Whether males or females are more mobile depends on the particular socio-cultural and economic setting. In the general Canadian population, males are more mobile than females but in the aboriginal population, young females are more likely to move than males. Among aboriginal people, males are more likely to move for economic reasons and job opportunities whereas females are more likely to move for personal and family reasons. Given the limited economic opportunities for aboriginal males in the larger society, it is likely that females will continue to predominate in local mobility and migration. It is expected that males will continue to be more mobile among non-aboriginal people.

3) MARITAL STATUS.

Marital status does not provide a clear framework for evaluating migration propensities. Movers include a higher proportion of married people than single, widowed or divorced. However, the transition from one status to another is associated with an increase in mobility. Therefore, marital status could have either a positive or a negative impact on mobility.

4) EDUCATION.

A higher level of completed education is generally associated with greater mobility, especially longer-distance migration. Those with higher education are more likely to have the resources to obtain more accurate information about opportunities in alternate locales. Information that is more accurate serves to reduce the cost of mobility. As well, those people with higher completed education may have already engaged in mobility in order to gain their education and so may be more predisposed to move again. Therefore, it is hypothesized that those of all groups with a higher level of completed education will be more likely to engage in migration.

5) OCCUPATION.

Educational level is related to occupational status. A higher occupational level often requires a greater amount of mobility, as career opportunities at this level are fewer and more widely dispersed than jobs at a lower level. A particular community can support many more positions at a lower occupational level than at the highest level. Therefore, those individuals of all groups at a higher occupational level will be more likely to engage in longer distance moves, especially inter-provincial migration.

6) INCOME.

Income level is also predicted to have a positive influence on migration propensities for all groups in this study. Those with a larger income may be better able to afford the financial costs of a move. This may be particularly relevant with regard to migration from the north since goods and services such as air travel and

gasoline are significantly more expensive than in the south. Income level is not as stable as age in predicting migration propensity, since other factors like social assistance benefits and family assistance may provide resources additional to earned income or may reduce the costs of migration. However, income does emerge in migration literature as a factor with some predictive utility. It is expected that income level will have a positive effect on the propensity to move with the strongest influence in the case of inter-provincial migration.

7) REGION.

The region of the country can either increase or decrease the costs to migration. People in the northern regions of the country are more isolated than those in the southern provinces. In terms of monetary costs, transportation to and from the northern regions tends to be quite expensive. This cost is expected to inhibit inter-provincial migration propensities for northern aboriginal residents. However, non-aboriginal people tend to be more mobile inter-provincially.

8) ABORIGINAL STATUS.

In general, aboriginal identity is expected to have a negative effect on migration probability but a positive effect on shorter distance mobility. Some differences are expected between the different aboriginal groups. The literature indicates that migration is higher among non-status Indians and Metis than among status Indians and Inuit. The differences between the migration behaviour of the four aboriginal groups in Canada imply that identification with a well-defined group may have an important impact on mobility. The Inuit and status Indians have a more defined cultural environment and therefore, it is expected that sub-cultural norms regarding

kinship and community ties will be strongest for these people. Although there is expected to be a significant amount of shorter distance mobility, the inhibiting effect of ethnic group identification is expected to have a strong negative effect on inter-provincial migration. The Métis and non-status Indians also share a set of norms that differ from those of non-aboriginal people. However, the lack of defined territories for the two groups means that these individuals are more dispersed, and hence the effect of ethnicity is expected to be less pronounced than for the Inuit and Status Indians. Therefore, Métis and non-status Indians are expected to show an intermediate pattern of migration propensity.

9) ABORIGINAL STATUS X REGION INTERACTION.

While local mobility is very high among northern aboriginal groups, migration occurs to a lesser extent than among aboriginal people in other parts of the country. It is expected that shorter distance mobility of northern aboriginal people will exceed that of non-aboriginal people. However, the situation will be reversed for longer distance moves and inter-provincial migration. This distinction will be more extreme for aboriginal people in the far north region than for aboriginal people elsewhere in Canada. Among the four groups of northern aboriginal people, the Inuit and status Indians will be less likely to exhibit migration than both the Metis and non-status Indians. The negative effect of ethnic identification is expected to be stronger for the Inuit and status Indians because their communities are more defined and organized than those of the Metis and non-Status Indians.

CHAPTER FIVE. DATA AND METHODS

THE DATA

The data for this study is taken from the public use micro-data files (PUMF) of the 1996 Canadian Census[3]. The target population for the PUMF includes all Canadian citizens and landed immigrants whose usual residence is in Canada or who are residing abroad, on a military base or on a diplomatic mission. It also includes certain people who are non-permanent residents of Canada. Those people who hold a student or employment visa, hold a Minister's permit or are refugee claimants are included in the file. Institutional residents, residents of incompletely enumerated Indian reserves or settlements and foreign residents[4] are not included in the target population.

A two-stage process was used by Statistics Canada to derive the sample. The first phase of sampling was accomplished during the 1996 Census. Four out of five households were enumerated using a short questionnaire with seven demographic questions. All other households were enumerated using a long questionnaire that included the seven questions of the short form but also included 47 other questions relating to a wide range of subjects, including mobility. The first phase of sampling for the PUMF on individuals was the sampling of the households completing the long questionnaire. The second phase of sampling was the selection of individuals to be included in the microfiles.

[3] Mobility data from the 2001 Census was not available at the time of writing this thesis.
[4] Foreign residents include foreign diplomats, members of the Armed Forces of other countries stationed in Canada and residents of another country visiting Canada temporarily.

The resulting sample size of the PUMF is 2.8% of the target population and contains 729,448 records on individuals. The public use micro-data file presents a sample of records from the 1996 Census. Therefore, there is not necessarily complete agreement between the estimates obtained from the PUMF and the results based on the population as a whole.

In the 1996 census, households in the two main northern centres, Whitehorse and Yellowknife, were self-enumerated. Interviews were conducted to enumerate households in smaller centres and remote areas. Enumeration was not allowed, or was interrupted before completion, on 77 Indian reserves and settlements in the 1996 census. An estimated 44,000 people, mostly registered Indians, were living in incompletely enumerated areas. Therefore, undercoverage of the aboriginal population in the 1996 census is higher than among the general population (Statistics Canada Daily, 1998).

For the purposes of this study, a working data file was created that excluded individuals under the age of fifteen. Very young individuals can be characterized as 'tied movers'. They do not engage in a decision-making process but move where their families take them.

MEASUREMENT OF VARIABLES

DEPENDENT VARIABLES

In this study, mobility is the dependent variable and is measured using the "place of residence five years ago" variable in the 1996 Canadian Census. This variable included the total population five years of age and older excluding

institutional residents and Canadians living in households outside Canada. Mobility status was determined by comparing the person's usual place of residence on Census Day to his or her usual place of residence five years earlier on May 14, 1991. If no difference exists, the respondent was classed as a non-mover. If a difference exists between the two addresses, the respondent was classed as a mover. A respondent was classified as a non-migrant if the person lived at a different address on Census Day but in the same census subdivision as five years earlier. Migrants are those who were living in a different census subdivision within Canada on Census Day as well as those who were living outside Canada five years earlier (Statistics Canada, 1996). The Census provides for six codes of the variable: 1) non-mover, 2) non-migrant, 3) different census subdivision (CSD) but same census district (CD), 4) different census district in the same province, 5) inter-provincial migrant, and 6) external migrant. The variable was recoded into four categories: non-mover, local mover, intra-provincial migrant, and inter-provincial migrant. External migrants were excluded from the analysis since this category does not represent movement within Canada. The incidence of each of these types of movement is analyzed separately using dummy variables with non-movers as a reference category.

As previously noted, there are some limitations of using the 'five-year mobility' census variable to examine mobility behaviour. The variable does not provide information about multiple moves that may have occurred during the five-year interval. Furthermore, individuals who moved during the interval but

subsequently returned to their place of origin before the end of the time period would appear as non-movers' in the data.

INDEPENDENT VARIABLES

Demographic Variables: Age, Sex and Marital Union

Age is measured using dummy variables of the age groups 15-24, 25-34, 35-44, with the age group 45 and older as the reference category. These groups were chosen in order to capture the age specific pattern of migration. Sex is a dichotomous categorical variable with female coded '0' and male assigned a code of '1'. The 'marital union' variable is measured as a dummy variable (no union = 0, union = 1) computed from two census variables, 'legal marital status' and 'census family status'. Some individuals are included in the non-union category despite the fact that they claim to be legally married and not separated. For example, 740 individuals who are lone parents but claim to be legally married are included in the non-union category. Likewise, 2500 individuals who claim to be legally married but are living in non-family households or alone are included in the non-union category.

Economic Variables: Education, Income, Occupation

Education is measured using dummy variables of three categories of educational attainment: less than high school, high school diploma, and post-secondary education. In the analysis, less than high school serves as the reference category. These categories are recodes of the census variable "Highest level of schooling", referring to the highest grade or year of elementary or secondary school attended or the highest year of university or other post secondary institution

attended. Values of this variable range from "less than grade five", to "university: Ph.D.". Total household income is used rather than individual income, because it is more indicative of the total resources available to finance a move. The census variable, 'total household income' has 25 income categories ranging from 'loss' to '$200,000 or more'. This variable is recoded to create a nominal variable with three categories: low income (loss to $24,999), medium income ($25,000 to $74,999), and high income ($75,000 and higher). The low income and high income categories represent the bottom 25% and top 25% of the cases respectively, relative to the median. Occupation is measured using a dummy variable with professional coded 1 and other coded 0.

Region Variable

The region is measured as a dummy variable with the northern region, consisting of the Northwest Territories and Yukon Territory, coded as 1 and the southern region, including all other areas in Canada, coded as 0.

Aboriginal Variable

Aboriginal status is measured as a nominal variable computed from 'Aboriginal self-reporting' and the 'Registered Indian indicator'. The aboriginal self-reporting question refers to persons who identify with at least one aboriginal group. It is preferable to focus on individuals who identify with an aboriginal group as opposed to those who simply claim aboriginal origin. Since the ethnic effect is dependent on the strength of identification with the group, it is appropriate to focus on those people who claim an aboriginal identity. A person with aboriginal ethnicity does not necessarily identify with the culture or actually

participate in an aboriginal community. The legislative complexities surrounding registration as an Indian have necessitated some assumptions. In the sample, 359 individuals who identify themselves as non-aboriginal are registered as status Indians. These people, likely women who gained registered Indian status through marriage, are included in the group of non-status, non-aboriginal people. It is assumed that these individuals have more in common with other non-aboriginal individuals than with registered Indians. Conversely, the 468 Métis individuals with registered Indian status are included in the status Indian group, following the assumption that they have more in common with status Indians than with other Métis. The eight Inuit people with status are included with other Inuit people. The 47 registered people with multiple aboriginal origins are included in the status Indian group, while those in the non-registered multiple aboriginal category are included with non-status Indians. Aboriginal status is measured using two dummy variables: Inuit and status Indian group, and Métis and non-status Indian group, with the non-aboriginal group as a reference category.

Interaction Variables

An interaction between aboriginal status and region is investigated in this study.

METHOD OF ANALYSIS

Analysis will proceed in several stages. First, descriptive statistics will be computed to provide a general overview of the differences in geographic mobility that exist in the various dependent variables and predictors. Bivariate logistic regressions will be run in order to demonstrate the effects of the control variables

or predictors on the dependent variables. Logistic regression will be applied to analyze the incidence of different types of mobility. Logistic regression can be used to model the probability of different types of mobility because each is arranged as a dichotomous variable with "no move" as a reference (move versus no move; inter-provincial move versus no move etc.). The control variables that will be used for this analysis are age, sex, marital union, education, income and occupation. The predictor variables in the analysis are region, aboriginal status and an interaction term (aboriginal status x region).

The following equation represents the logistic regression model that will be used to analyze the incidence of each type of mobility:

$$\ln[p/(1-p)] = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7x_7 + b_8x_8 + b_9x_9 + E$$

where p is the expected proportion of people who engaged in a particular type of mobility in the five-year period and (1-p) is the expected proportion who did not engage in that type of movement;

a is the intercept term (the value of ln[p/(1-p)] when all predictors are set to zero);

$x_1,\ldots,x_9$ are the independent variables where:

x_1 = education;

x_2 = income;

x_3 = occupation;

x_4 = age;

x_5 = sex;

x_6 = marital union;

x_7 = region;

x_8 = aboriginal status;

x_9 = aboriginal status x region (x_7x_8)

E = error term

and the corresponding coefficients b_1, b_2….,b_9 represent the change in the logged odds of a particular type of mobility for a one unit change in its associated independent variable. The direction of the slopes, as indicated by a positive or negative sign, should be consistent with the hypotheses detailed in the last chapter.

CHAPTER SIX. RESULTS

DESCRIPTIVE STATISTICS

Tables 7.1 and 7.2 indicate the percentage of each status group engaged in different types of mobility and non-mobility for southern and northern samples respectively. For all groups in the south, the most common type of mobility is local, while the least common is a migration across provincial boundaries. Northern Inuit and Status Indians follow this general pattern as well, but important differences are noted in the mobility pattern for the other two status groups. For those in the northern non-aboriginal group the most common form of mobility is inter-provincial migration. Northern Métis and non-Status Indians most commonly engage in local moves, but inter-provincial moves eclipse intra-provincial moves as the next most common type of mobility.

To understand some of the factors that contribute to differences in mobility behaviour among status groups, it is important to obtain a general sense of the differences in demographic and socioeconomic characteristics that exist between the different groups. The differences between the groups in terms of educational attainment are striking (see Tables 7.3 and 7.4). Sixty-three percent of Inuit and Status Indians in the north have less than a high school education. In comparison, 52% of Métis and non-Status Indians and only 22% of non-aboriginal people have no high school diploma. For all northern groups, the proportion of people with only a high school diploma is quite small, perhaps indicating that most people who earn a diploma go on to complete some kind of post-secondary study. The pattern of educational attainment is similar for groups in the south but both southern Inuit

and Status Indians and southern Métis and non-Status Indians include more individuals with at least a high school diploma than is found among these groups in the north.

In the northern sample, approximately half of non-aboriginal people are engaged in professional occupations (see Tables 7.5 and 7.6). Large differences exist in occupational status between non-aboriginal and aboriginal people. Compared with the 51% of northern non-aboriginal people working in professional occupations, only 32% of Métis and non-status Indians and 30% of Inuit and status Indians are in professional positions. This pattern is similar to the one shown for the southern sample; with the only real difference being a slightly lower proportion of non-aboriginal workers in professional occupations.

The distribution of household income for the northern and southern samples is presented in Tables 7.7 and 7.8. The first thing that is immediately obvious is that, in both samples, a higher proportion of non-aboriginal households had high incomes, relative to the other two groups. Northern Métis and non-status Indians show a relatively even distribution of low, medium and high income, at 26%, 39% and 35% respectively. The Inuit and status Indian group had the highest proportions of their populations in the low-income category in both the northern and southern samples. In the southern sample, 43% of Inuit and status Indians reported low income compared with 37% of Métis and non-status Indians and only 22% of non-aboriginal respondents. Likewise, the household income of 32% of northern Inuit and status Indians fell in the low category, while 26% of Métis and non-status Indians and 11% of non-aboriginal respondents did so.

BIVARIATE LOGISTIC REGRESSIONS

Bivariate logistic regression results are presented in Tables 7.9, 7.10 and 7.11. The constants demonstrate the log odds of the specific type of mobility that correspond to the reference category for each categorical variable. The coefficients (b) indicate either an increase (+b) or decrease (-b) in the logged odds of making this type of move for a one-unit change in its associated predictor. The exponent of b represents the amount by which the given predictor multiplies the expected probability of the incidence of this type of move.

Occupation had a significant effect on the three types of mobility: local, intra-provincial and inter-provincial. However, while it had a relatively weak, negative effect on the odds of a local move by a factor of .984 (2%), it had a stronger, positive effect on the odds of making an intra-provincial move (1.137) or an inter-provincial move (1.143). This is consistent with the hypothesis that labour opportunities are more geographically dispersed for professional occupations and therefore, professionals are more likely to move longer distances.

Income level is associated with a decrease in the odds of each type of mobility. It is apparent that high income had the strongest negative effect on local, intra-provincial and inter-provincial mobility with multiplicative factors of .542 (46%), .646 (35%) and .619 (38%) respectively. This is contrary to the hypothesis that an increased level of income is associated with increased levels of mobility. However, the effect of income as a predictor is variable, since it may refer to income status after a move has occurred (Rosenbaum, 1993; Ritchey, 1976). This may be an important consideration in this case, since the census mobility question

refers to activity during the previous five years and the household income question refers only to the taxation year just before the census year.

Level of educational attainment demonstrates the predicted strong, positive effect on the odds of mobility. As expected, a high school diploma has a fairly consistent positive effect on the odds of all three types of mobility, relative to having less than a high school education. The most dramatic effect is seen for the post secondary category. For local mobility, post secondary education has a multiplicative effect of 1.418 (42%). In the case of longer distance, intra-provincial mobility, post secondary education increases the odds by a multiplicative factor of 1.942 (94%). Compared to those with less than a high school diploma, those with a post secondary education are almost 2.5 times more likely to migrate across provincial or territorial boundaries.

Being in a marital union has a negative effect on the odds of engaging in any of the three mobility types. For local and intra-provincial mobility, being in a marital union decreases the odds by factors of .748 (25%) and .922 (8%) respectively. A marital union decreases the odds of inter-provincial migration by a multiplicative factor of .788 (21%).

Sex has a relatively small effect on the odds of mobility. Females are slightly more likely to move locally by a factor of .986 (1%). This effect is significant at the $p \leq .05$ level. Sex has no significant effect on the odds of an intra-provincial move. Males are significantly more likely than females to engage in inter-provincial migration by a multiplicative factor of 1.060 (6%). It is not surprising that sex shows such a weak effect. Shaw (1975) proposes that, in highly

developed societies such as Canada, the sex differential narrows over time, as differences in labour force participation become less marked. However, the significant effects observed are consistent with the hypotheses that females dominate in short-distance, local moves while males more commonly engage in long-distance migration.

A significant positive effect is apparent for all age groups and for all three types of mobility. As predicted, the age group 25-34 shows the strongest positive effect. Relative to those 45+ years, those in the age group 25-34 are over 6.5 times (6.680) more likely to move locally, almost 7 times (6.867) more likely to move within province, and almost 8.5 times (8.405) more likely to engage in inter-provincial migration. The odds of a local move increase by multiplicative factors of 2.377 and 2.534 for the age groups of 15-24 and 35-44 respectively. At the ages of 15-24, the odds of an intra-provincial move increase by a factor of 2.510, while the odds for those 35-44 are multiplied by a factor of 2.281. Those in the age group of 15-24 are over 3 times (3.115) more likely to move inter-provincially. Relative to those 45+ years, the odds of an inter-provincial move for those 35-44 increase by a factor of 2.763.

Region is a pivotal variable in the present analysis of mobility. The northern region has a significant positive effect on the odds of making a local move by a factor of 2.049, and of making an inter-provincial move by a factor of 9.054. Those in the northern region are slightly less likely to engage in an intra-provincial move (.862) but this effect is not significant.

A second central variable is that of aboriginal status. Being a member of an aboriginal group increases the odds of every type of mobility. Métis and non-status Indians are twice (2.018) as likely to engage in a local move than non-aboriginals. The Inuit and status Indian group multiplies the odds of a local move by a factor of 1.713 (71%). The odds of an intra-provincial move increase by a multiplicative factor of 1.711 for Métis and non-status Indians and by a factor of 1.455 for Inuit and status Indians. Métis and non-status Indians are almost 2.5 times (2.441) more likely than non-aboriginals to undertake inter-provincial migration. The odds increase by a multiplicative factor of 1.610 for the Inuit and status Indian group.

LOGISTIC REGRESSION

The logistic regression results of the predictors on the incidence of each of the three types of mobility are presented in Tables 7.12, 7.13 and 7.14. A summary of these results is presented at the end of this chapter.

ECONOMIC VARIABLES

The direction of the coefficient for occupation changed from negative to positive when all other variables were included in the equation for local moves. The increase in the odds of a local move also became much stronger with a multiplicative factor of 1.109 (11%). Professional occupation is positively associated with an intra-provincial move by a factor of 1.228 (23%) and an inter-provincial move by a factor of 1.283 (28%). This result is consistent with the hypothesis that those with a higher occupational status are more likely to engage in mobility. Also consistent is the larger effect of this predictor on longer distance moves.

Income was expected to have a positive effect on the odds of mobility and the strongest influence on longer distance moves. Contrary to the hypothesis, income shows a negative effect on the odds of mobility, an effect that became stronger when all other variables were included in the analysis. Relative to low income, medium income has a significant, negative effect on the odds for local, intra-provincial and inter-provincial moves at .542 (46%), .502 (50%) and .436 (56%) respectively. High income has an even stronger effect than medium income, with the strongest effect on longer distance moves. The odds of inter-provincial migration decrease by a multiplicative factor of .271 (73%). The early 1990s were a period of economic restraint across most of Canada. It is likely that those households who were making good incomes acted to maintain their standard of living and may have been unwilling to gamble on better prospects elsewhere. This is consistent with Shaw (1975), who suggested that a high level of unemployment at possible destinations deters migration.

The results for education are in the expected direction but the strength of the effect declines in all mobility categories when other variables were included in the analysis. High school is relatively unimportant, with the only significant finding being a weak, positive effect on the odds of intra-provincial mobility by a multiplicative factor of 1.086 (9%). As expected, post secondary education has a strong, positive effect on the odds of moving, with the strongest effect apparent for long distance migration. High educational attainment increases the odds of inter-provincial migration by a factor of 1.943 (94%). Minimum levels of education, such as a high school diploma, may not have a significant effect on opportunities

elsewhere. However, the completion of post secondary studies makes it more likely that an individual will be able to obtain accurate information about different opportunities in alternate locations. Highly educated individuals may already have moved in order to access higher education and they may be more predisposed to move again.

DEMOGRAPHIC VARIABLES

Males are slightly more likely to make longer distance intra-provincial moves (1.032) and migrations across provincial boundaries (1.115). The direction of the coefficient for local mobility indicates that females are slightly more likely to make local moves (.980). This effect is significant at the $P \leq .05$ level.

Marital union does not have a significant effect on the odds of a local move. However, being in a union increases the odds of moving intra-provincially by a factor of 1.424 (42%), and the odds of migrating inter-provincially by a factor of 1.226 (23%).

Age shows a positive effect on the odds of all types of mobility. The age group 25-34 has the most pronounced effect, increasing the odds for inter-provincial migration by a multiplicative factor of 7.586. The odds further increase by the multiplicative factors of 6.671 and 5.822 for intra-provincial and local moves respectively. Compared to those 45 years and older, the age groups of 15-24 and 35-44 are more likely to move. The 15-24 age groups shows a similar pattern to that demonstrated for the 25-34 age group, with an increasing strength of effect with increasing distance. The 15-24 age group increases the odds of a local

move by a multiplicative factor of 2.278, the odds of an intra-provincial move by a factor of 3.603 and the odds of an inter-provincial move by a factor of 4.354.

THEORETICAL VARIABLES

There are two central variables in this study: region and aboriginal status. After detailing the effects of aboriginal status and region on the odds of different types of mobility, the effects of an interaction of the two variables will be examined.

Compared with the south, the north is associated with significantly greater odds (1.795) of making a local move. The positive effect of region on the odds of making an inter-provincial migration is dramatic, with a multiplicative factor of 13.922. In contrast, region has a negative effect on the odds of an intra-provincial move. Those in the north have lower odds, by a factor of .734, of making an intra-provincial move.

In contrast to non-aboriginal individuals, the Métis and non-status Indian group is more likely to make a local move by a multiplicative factor of 1.534. Métis and non-status Indian increases the odds of longer distance intra-provincial moves by a factor of 1.536 and also increases the odds of inter-provincial migration by a factor of 2.257. The direction of the coefficients for the Inuit and status Indian group indicates an increase in the odds of local and inter-provincial moves and a decrease in the odds of an intra-provincial move. However, these effects are not significant.

The interaction term of region X Metis and non-status Indian demonstrates a negative direction for all three types of mobility. However, the effect of the

interaction term is not significant for local and intra-provincial moves. Northern Métis and non-status Indians are significantly less likely to undertake an inter-provincial migration. The odds in this case decrease by a multiplicative factor of .116 (88%). The direction of the coefficient for the interaction term of region X Inuit and status Indian on local moves indicates that northern Inuit and status Indians are less likely to make a local move. Conversely, they are more likely to move intra-provincially. However, neither of these effects is statistically significant. The odds of an inter-provincial move significantly decrease by a multiplicative factor of .081 (92%) for northern Inuit and status Indians.

Comparison of the coefficients for region and the interaction term implies that the positive effect of region on mobility is accounted for by the hyper-mobility of non-aboriginal northerners. Aboriginal northerners are significantly less likely to move inter-provincially. The significant effects of region on local and intra-provincial moves disappear when we look specifically at aboriginal northerners.

The coefficients for the aboriginal status group, Métis and non-status Indian, demonstrate a significant increase in the odds of all types of moves. However, for northern Métis and non-status Indians the effect loses its significance for local and intra-provincial moves as well as changing direction from positive to negative. The coefficient for inter-provincial migration also changes from a positive to a negative; the odds of an inter-provincial move decline significantly for northern Métis and non-status Indians. This indicates that the increase in the odds of mobility for the Métis and non-status Indian group applies to southern individuals of this group. Northern Inuit and status Indians are significantly less

likely to make an inter-provincial move. The direction of the coefficients of all three types of mobility changed direction in the interaction term, although only the effect for the northern group is significant. These results lend support to the hypothesis that the constraining effect of ethnic group membership on long-distance migration is stronger for the more isolated northern populations.

It was hypothesized that the ethnic effect would be more pronounced for the Inuit and status Indian group. The results of the analysis show a strong negative effect on the odds of inter-provincial migration for both aboriginal status groups in the northern region. Although the negative effect for the Métis and non-status Indian group is slightly less than that for the Inuit and status Indian group, the difference is too small to make a definitive judgement. However, the fact that the Métis and non-status group significantly increases the odds of all types of mobility while the effect of the Inuit and status Indian group is not significant lends some support to the hypothesis.

These results must be interpreted very cautiously because the sample on which they are based is very small for some conditions. Tables 7.15 and 7.16 indicate the number of individuals in each aboriginal status group who engage in the different types of mobility for the northern and southern regions. Due to the small populations in the north, some cells in the sample are extremely small. For example, only four Métis or non-status Indians made an intra-provincial move from 1991 to 1996. For this reason, a further logistic regression was completed, collapsing the categories of mobility into one (move) and the two different groups

of aboriginal status into one (aboriginal). Thus, aboriginal status is defined as identifying oneself as Métis, status Indian, Inuit or non-status Indian.

The results of this regression are presented in Table 7.17. The results of this analysis are generally consistent with the previous analysis. Except for sex, the economic and demographic predictors maintain a significant effect on the incidence of mobility. Region also continues to be a significant predictor of mobility. Those in the north are more likely to move by a multiplicative factor of 2.444. The odds of engaging in a move of any type increase by a multiplicative factor of 1.231 (23%) for those with aboriginal status. However, northern aboriginal people are less likely to move by a factor of .521 (48%).

SUMMARY OF RESULTS OF PREDICTOR VARIABLES ON INCIDENCE OF DIFFERENT TYPES OF MOBILITY

PREDICTOR	LOCAL MOVE	INTRA-PROVINCIAL MIGRATION	INTER-PROVINCIAL MIGRATION
Professional Occupation	+	+	+
Income			
Medium	-	--	--
High	--	--	--
Education			
High School	NS	+	NS
Post-Secondary	+	++	++
Marital Union	NS	+	+
Sex	-	+	+
Age			
15-24	+++	+++	++++
25-34	++++	++++	++++
35-44	+++	+++	++
Region	++	-	++++
Aboriginal Status			
Métis & nonstatus	++	++	+++
Inuit & status	NS	NS	NS
Aboriginal status X Region			
Métis & nonstatus X region	NS	NS	--
Inuit & status X region	NS	NS	--

+ / - means a weak relationship NS means not significant
++/ -- means a moderate relationship
+++/ --- means a strong relationship
++++ / ---- means a very strong relationship

CHAPTER SEVEN. DISCUSSION AND CONCLUSIONS

This study has attempted to examine the incidence of various types of mobility for different groups of aboriginal people and to compare the effect of the northern and southern region of Canada on mobility. The theoretical framework, adapted from the ethnic effects hypothesis and microeconomic cost/benefit hypothesis, showed how the unique character of aboriginal status operates to influence type of mobility. It was proposed that, in addition to standard economic variables (household income, occupation and education) and demographic variables (age, sex and marital status), the region of the country and aboriginal status would affect migration propensity and the pattern of mobility.

The economic variables are significant and all are in the hypothesized direction except for household income. Contrary to the prediction, income has a negative effect on the incidence of mobility. Of the demographic variables, age shows the strongest effect, with the peak ages of mobility at 25 to 34 years. Being in a marital union seems to be associated with geographic stability as it has a negative effect on mobility. The effect of sex is in the expected direction, but it is not significant.

Region has a strong positive effect on the incidence of mobility, indicating that northern Canadians are more likely than those in the south to engage in mobility. Tabulations presented in chapter two show that the Yukon and Northwest Territories experienced the highest population turnover of any jurisdiction in Canada from 1991 to 1996. However, the analysis shows that northern aboriginal individuals are significantly less likely to move. Thus, it is

apparent that the positive effect of region in this analysis is due to the population movements of non-aboriginal people. This is consistent with previous examinations of aboriginal mobility, which also found substantially lower mobility among aboriginal people in the north than among non-aboriginals (Norris, 1996). The two territories face a significant challenge in managing the needs of two very different segments of their populations. Resource-based economies, such as those of the territories, are associated with a large amount of labour mobility. In a study of frontier communities, Nickels (1976) proposed that frequent moving might be indicative of a mobile behaviour pattern. In addition, he suggests that recent arrivals to a community are not fully established in, or committed to, the community. The lack of ties to the community may encourage further mobility. The census does not reveal whether an individual engaged in multiple moves during the time period, but it is probably a fair assumption that the population of the north included a significant number of highly mobile, non-aboriginal people between 1991 and 1996. On the other hand, the aboriginal population in the north appears to be quite stable.

The ethnic effects hypothesis proposes that, independent of differences in socioeconomic status or personal characteristics, ethnic group identification has a constraining effect on migration propensities. Contrary to this hypothesis, aboriginal status has a positive effect on the odds of mobility. However, varying effects are suggested for different groups of aboriginal people and for different categories of mobility. Métis and non-status Indians are significantly more likely to make a move of any type, while the Inuit and status Indian group has no

significant effect on the odds of mobility. This implies that the positive effect of ethnicity is much stronger for the Métis and non-status Indian group. Furthermore, ethnicity has the strongest effect on long distance migration. Ethnicity was predicted to have a constraining effect on the odds of migration for both aboriginal status groups, compared to non-aboriginal people. However, compared to the Métis and non-status Indian group, the effect was expected to be stronger for the Inuit and status Indian group because of greater group cohesiveness. The results suggest that ethnicity does constrain migration more for Inuit and status Indian individuals. The positive effect of Métis and non-status Indian on the odds of mobility, relative to non-aboriginals is surprising. Perhaps visible minorities without membership in a cohesive group experience more insecurity, leading them to be more mobile. This is only speculation, however, and it must be remembered that the problem encountered with small sample sizes means that the results cannot be interpreted as conclusive.

The ethnic effects hypothesis suggests that ethnicity operates to deter migration through a number of normative and social psychological dimensions of ethnic social organization. These factors include sub-cultural norms concerning the importance of social ties like those to kin and community, and the ability to assimilate into a new environment (Uhlenberg, 1973). This study proposes that the ethnic effect will be stronger for northern aboriginal populations because their relative isolation from the rest of the country accentuates ethnic group identification. The results of the analysis confirm that the effect of ethnicity on mobility does vary by region. While the odds of mobility increase with aboriginal

status, aboriginal people in the north are significantly less likely to undertake a move. There may be a number of reasons for this phenomenon. While aboriginal people in both regions may have divergent norms regarding ties to the community, the relative isolation of the north may operate to reinforce these norms to a greater degree (Dunning, 1964). Trovato and Halli (1990) suggest that the greater the degree of institutional completeness of the ethnic community, the more members interact with each other, reinforcing group norms and resulting in greater levels of ethnic consciousness. Aboriginal people constitute a larger proportion of the population of the two territories than any other jurisdiction in Canada. Furthermore, the political and social organization of the northern territories is designed with the greatest sensitivity to aboriginal needs and values anywhere in Canada. The visibility and validation of northern aboriginal people at a structural level may function to reinforce culture-specific norms and enhance ethnic consciousness.

The isolation of the north may also decrease the ability of aboriginal people to assimilate into the larger, southern society. According to Uhlenberg (1973), the less cosmopolitan people are, the less likely they are to migrate. Even the largest cities in the territories are small compared to southern urban centres. Aboriginal people in the north are less urbanized than those in the south; most live in rural areas or small urban centres. The least urbanized of all aboriginal groups is the Inuit. With high costs of travel to and from the north, it is likely that most northern aboriginal people have fewer opportunities for personal contact with mainstream Canadian culture than those in the south. However, this effect may be somewhat

tempered by accessibility to television and other media. The massive distances from their communities of origin to opportunities in other locales may also affect the decreased likelihood of migration for northern aboriginal people. As Simmons suggests, those individuals "...linked closely by kinship, culture and language to a region, are the least likely to move—particularly when economic opportunities are located far away, in a markedly different cultural milieu." (1977: 11).

POLICY IMPLICATIONS

The purpose of this study was to explore the effects of a number of variables on the incidence of mobility. A major point was to examine the effects of aboriginal status on mobility for different regions of Canada. The policy implications that arise from the results of the analysis are important. There are generally two ways for policy to approach migration. People can be expected to move to areas with economic resources and opportunity, or development can be focused on the locations where people live (Rosenbaum, 1993). The purpose of these recommendations is not necessarily to promote the movement of aboriginal people away from their communities of origin. Mobility should remain a matter of choice. However, aboriginal people should have the opportunity to be successful where they live or, if they choose, to leave. In the larger centres, support is necessary to achieve success. It is evident from the results of this study, as well as others, that aboriginal people experience significant barriers to opportunities, regardless of whether they live in northern or southern Canada. Policy should be aimed at removing these obstacles. It is also important to recognize that, especially in the northern regions of the country, ties to the community may have a strong

constraining influence on longer-distance migration. Policy recommendations fall into two broad categories: removing barriers to success in the larger society, and economic development in aboriginal communities.

REMOVING BARRIERS

Education

In the early 1980s, some gains were made in improving achievement in education among aboriginal people. However, the high numbers of people who do not complete grade school education is a persistent problem (Buckley, 1992).

The educational attainment of aboriginal people lags far behind that of non-aboriginals. The 1996 census shows that 62% of Inuit and status Indians and 52% of Métis and non-status Indians did not complete high school. These statistics were calculated for individuals 15 years and older so some of these people could not be expected to have finished school yet. However, the rate of school completion still compares poorly with the 22% of non-aboriginal people who did not have a high school education. Although post-secondary education shows the strongest effect on the likelihood of migration, the roots of success at the post-secondary level are at the grade school level. This lack of educational achievement acts to limit the prospects of success for aboriginal people in the larger society. Poor educational achievement severely reduces the benefits to be gained from migration. Even if they do migrate, without educational qualifications or skill development, their chances of competing successfully for employment are slim. Many aboriginal people who would otherwise have wanted to migrate will not do so or will not be successful in integrating into locations outside their communities of origin. Some

programs have been initiated to improve educational and skill levels. However, training programs for aboriginal people often assume that individuals will be willing to move to access them (Monu 1976). The results of this study demonstrate that this may not be an accurate assumption. Particularly in the northern regions of the country, there is a significant decrease in the likelihood that an aboriginal person will undertake a long distance migration. Therefore, educational and training opportunities need to be placed closer to the areas in which these people live.

Access to Information

Theoretically, accurate information is crucial in the weighing of costs and benefits as part of the decision-making process. In his study of aboriginal youth in northern Manitoba, Monu (1976) found a high level of uncertainty among the youth concerning whether their goals could be met by migrating. A lack of knowledge about opportunities in alternate locations was apparent. Accurate information is assumed to be better among those with higher education. However, if educational opportunities are not available in the place of residence, those without accurate information may never get the higher education. Policy should be directed toward ensuring that aboriginal people are aware of educational and vocational opportunities that are available to them. Information must be presented in a culturally appropriate and relevant manner.

Discrimination

The negative experience of conflict and discrimination in the larger society is a significant barrier to migration, as well as to success in alternate locales. Aboriginal people often experience discrimination in housing, employment and daily life, particularly in areas outside their own communities. As stated earlier, persistent difficulties encountered in the larger society can increase levels of stress, causing people to seek refuge in their communities. During the period spent in the larger society, people may try to cope with negative stereotypes in a variety of self-deprecating ways (Denton, 1975). The practical effect of this reality is the further marginalization of aboriginal people. While certain avenues of complaint, such as the Human Rights Commission, are available, they are generally considered ineffective in promoting tolerance and inclusion. Policy must be directed at removing the barriers to participation in the larger society caused by discrimination.

ECONOMIC DEVELOPMENT

Since the 1960s, the federal approach to development consists of expecting aboriginal people to migrate to mainstream areas of economic opportunity, especially urban centres (RCAP, 1996). However, the results of this study suggest that, after controlling for economic and demographic factors, an ethnic effect is apparent. In general, aboriginal people show an increased likelihood of engaging in mobility, but it is probable that most of these moves are local and intra-provincial mobility. The ethnic effect varies by region, however. Northern aboriginal people are significantly less likely to engage in mobility. For some

people, especially in the north, the benefits of support of community, combined with the costs associated with leaving kin, the land and facing discrimination and economic difficulties in alternate locations translate into a disinclination to migrate. This fact points to the importance of the development of opportunities in and around aboriginal communities.

Reserves have been called "...an exploited internal colony for which external political and economic control creates substantial barriers to development." (Frideres, 1988: 367). In part, this refers to the fact that reserve lands are not under the control of the Indian inhabitants. Rather, reserve lands are owned by the Crown and are only administered by the band (Comeau and Santin, 1990). This situation generally functions to hold Indian people to locations that have not been developed to generate income (Buckley, 1992). Prosperity varies widely on reserves and much of this variation seems to depend on location. Those situated in the southern regions of the provinces near major urban centres tend to be more prosperous. However, many reserve residents live in dire circumstances. On average, income levels on reserve are significantly lower than the Canadian average and about two-thirds of working-age residents are unemployed or on welfare. Improvements have been made in living conditions but over half of the dwellings are still in need of major repairs (Comeau and Santin, 1990). Some reserves have benefited by a significant amount of development, but it is not enough to provide opportunities to a growing population that is aging into the young adult age group. Most of the funds allotted to reserves are spent on maintenance items such as welfare and infrastructure. From 1986 to 1992, only 4%

of the annual budget was allotted to economic development (Buckley, 1992). Despite these conditions, migration flows back to reserves have increased in the last several years. Furthermore, the results of this study suggest that group identification and ties to an aboriginal community have a significant constraining effect on migration. Therefore, people will continue to choose to live in aboriginal communities, whether they are reserves, settlements or other rural communities, and economic opportunities must be developed in these areas. A continuation of the current situation will result in deepening economic dependency and crippling social problems.

DIRECTIONS FOR FURTHER RESEARCH

The available data has been a severe limitation on this examination of aboriginal mobility. This study proposed that aboriginal groups be analyzed separately, rather than being treated as a homogenous group. The logistic regressions of the different groups of aboriginal status on categories of mobility suggest that there may be important differences between the Métis and non-status Indians and the Inuit and status Indians. However, limitations of the data, specifically small sample sizes for some groups, precluded analysis at this level of detail. The sample size for the north is so small that definitive conclusions are impossible.

By necessity, a final analysis was done with all four aboriginal groups included as a single group and the different categories of mobility combined into a single group. A larger sample of aboriginal people would allow a more conclusive analysis to be completed. It has been argued that census data is not detailed enough

to expose the dynamics of aboriginal mobility. Rather, a mobility survey should be conducted to provide data for finer analysis. There is reason to believe that this may be true. The diversity of geographic, social and economic environments of aboriginal people suggests that aggregate studies may not be the best way to study the mobility experience of these people.

This study found an effect of ethnicity on mobility that varies by region. This effect should be studied further. An assumption was made about the strength of cultural cohesiveness among different aboriginal groups. In future studies, strength of group identification could be measured by variables such as aboriginal language ability and participation in culturally specific activities. Theoretically, ethnicity affects migration propensities through such factors as sub-cultural norms and the ability to assimilate. It was not possible to directly measure these dimensions of ethnic social organization using census data. However, this is an important subject for future research.

This study found that the effects of economic and demographic variables commonly associated with migration differentials were generally consistent with the established literature. However, the results were probably driven mainly by the characteristics of the large number of non-aboriginal people in the sample. Further research should look at the effects of these standard variables, particularly the economic variables of education, occupation and income, on the mobility behaviour of different groups of aboriginal people.

Some researchers suggest that aboriginal migrants maintain strong ties with the community of origin (Lithman, 1984; Frideres, 1988) and the pattern of

mobility for many aboriginal people is cyclical, with a number of repeated migrations and returns. Strong connections with the origin community may prompt a return move even after many years away (McCallum, 1987). Although the available data does not allow for the examination of this question, it is an important direction for future research.

A common assumption is that aboriginal people will continue to move in order to escape problems, such as poor housing, violence, unemployment and poverty, in their communities. However, some researchers have taken issue with this point of view (Monu, 1976). The assumption of migrant motives on the basis of socioeconomic and demographic characteristics is a weakness of mobility research. Future studies should investigate whether poor living conditions on reserves and in communities act as a significant push factor. Differences between aboriginal migrants and non-migrants in terms of personal resources such as educational attainment likely indicate the effect of the pull of better opportunities elsewhere. It is also important to ascertain the characteristics of those who are 'pushed' out of communities, since these people may not be as well equipped to manage in the larger society.

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TABLE 7.1
PERCENTAGE DISTRIBUTION OF NON-MOBILITY AND TYPE OF MOBILITY FOR DIFFERENT STATUS GROUPS: NORTHERN SAMPLE

	NO MOVE	LOCAL	INTRA-PROVINCIAL	INTER-PROVINCIAL
NON-ABORIGINAL	37%	25%	7%	31%
MÉTIS & NON-STATUS INDIAN	48%	35%	5%	12%
INUIT & STATUS INDIAN	42%	44%	11%	3%

TABLE 7.2
PERCENTAGE DISTRIBUTION OF NON-MOBILITY AND TYPE OF MOBILITY FOR DIFFERENT STATUS GROUPS: SOUTHERN SAMPLE

	NO MOVE	LOCAL	INTRA-PROVINCIAL	INTER-PROVINCIAL
NON-ABORIGINAL	59%	23%	14%	3%
MÉTIS & NON-STATUS INDIAN	43%	34%	17%	6%
INUIT & STATUS INDIAN	48%	32%	16%	4%

TABLE 7.3
PERCENTAGE DISTRIBUTION OF EDUCATIONAL ATTAINMENT FOR DIFFERENT STATUS GROUPS: NORTHERN SAMPLE

	HIGHEST LEVEL OF EDUCATION		
	< HIGH SCHOOL	HIGH SCHOOL	POST-SECONDARY
NON-ABORIGINAL	22%	11%	67%
MÉTIS & NON-STATUS INDIAN	52%	6%	42%
INUIT & STATUS INDIAN	63%	3%	34%

TABLE 7.4
PERCENTAGE DISTRIBUTION OF EDUCATIONAL ATTAINMENT FOR DIFFERENT STATUS GROUPS: SOUTHERN SAMPLE

	HIGHEST LEVEL OF EDUCATION		
	< HIGH SCHOOL	HIGH SCHOOL	POST-SECONDARY
NON-ABORIGINAL	35%	14%	51%
MÉTIS & NON-STATUS INDIAN	48%	11%	41%
INUIT & STATUS INDIAN	57%	7%	36%

TABLE 7.5
PERCENTAGE DISTRIBUTION OF PROFESSIONAL OCCUPATION FOR DIFFERENT STATUS GROUPS: NORTHERN SAMPLE

	PROFESSIONAL OCCUPATION	
	NO	YES
NON-ABORIGINAL	49%	51%
MÉTIS & NON-STATUS INDIAN	68%	32%
INUIT & STATUS INDIAN	70%	30%

TABLE 7.6
PERCENTAGE DISTRIBUTION OF PROFESSIONAL OCCUPATION FOR DIFFERENT STATUS GROUPS: SOUTHERN SAMPLE

	PROFESSIONAL OCCUPATION	
	NO	YES
NON-ABORIGINAL	56%	44%
MÉTIS & NON-STATUS INDIAN	70%	30%
INUIT & STATUS INDIAN	68%	32%

TABLE 7.7
PERCENTAGE DISTRIBUTION OF INCOME FOR DIFFERENT STATUS GROUPS: NORTHERN SAMPLE

	HOUSEHOLD INCOME		
	LOW	MEDIUM	HIGH
NON-ABORIGINAL	11%	41%	48%
MÉTIS & NON-STATUS INDIAN	26%	39%	35%
INUIT & STATUS INDIAN	32%	53%	15%

TABLE 7.8
PERCENTAGE DISTRIBUTION OF INCOME FOR DIFFERENT STATUS GROUPS: SOUTHERN SAMPLE

	HOUSEHOLD INCOME		
	LOW	MEDIUM	HIGH
NON-ABORIGINAL	22%	53%	25%
MÉTIS & NON-STATUS INDIAN	37%	49%	14%
INUIT & STATUS INDIAN	43%	48%	9%

TABLE 7.9
BIVARIATE LOGISTIC REGRESSIONS OF INCIDENCE OF LOCAL MOBILITY

Independent Variables		Constant	b	exp(b)	Significance
1.	Professional Occupation	-.741	-.016	.984	.032**
2.	Income (ref low income)	-.633			
	medium		-.269	.764	.000*
	high		-.613	.542	.000*
3.	Education (ref < high school)	-1.121			
	high school		.184	1.202	.000*
	post-secondary		.350	1.418	.000*
4.	In Marital Union	-.749	-.290	.748	.000*
5.	Sex (male)	-.912	-.014	.986	.028**
6.	Age (ref 45+)	-1.658			
	15-24		.866	2.377	.000*
	25-34		1.899	6.680	.000*.
	35-44		.930	2.534	.000*
7.	Region (north)	-.921	.717	2.049	.000*
8.	Status (ref non-aboriginal)	-.934			
	Metis & nonstatus Indian		.702	2.018	.000*
	Inuit & status Indian		.538	1.713	.000*

* P≤.01
**P≤.05

TABLE 7.10
BIVARIATE LOGISTIC REGRESSIONS OF INCIDENCE OF INTRA-PROVINCIAL MOBILITY

Independent Variables		Constant	b	exp(b)	Significance
1.	Professional Occupation	-1.317	.128	1.137	.000*
2.	Income (ref low income)	-1.255			
	medium		-.153	.858	.000*
	high		-.437	.646	.000*
3.	Education (ref < high school)	-1.835			
	high school		.270	1.309	.000*
	post-secondary		.664	1.942	.000*
4.	In Marital Union	-1.396	-.081	.922	.000*
5.	Sex (male)	-1.442	-.001	.999	.936
6.	Age (ref 45+)	-2.176			
	15-24		.920	2.510	.000*
	25-34		1.927	6.867	.000*
	35-44		.824	2.281	.000*
7.	Region (north)	-1.442	-.148	.862	.103
8.	Status (ref non-aboriginal)	-1.452			
	Metis & nonstatus Indian		.537	1.711	.000*
	Inuit & status Indian		.375	1.455	.000*

* P≤.01
**P≤.05

TABLE 7.11
BIVARIATE LOGISTIC REGRESSIONS OF INCIDENCE OF INTER-PROVINCIAL MIGRATION

Independent Variables		Constant	b	exp(b)	Significance
1.	Professional Occupation	-2.703	.134	1.143	.000*
2.	Income (ref low income)	-2.600			
	medium		-.248	.780	.000*
	high		-.480	.619	.000*
3.	Education (ref < high school)	-3.365			
	high school		.246	1.279	.000*
	post-secondary		.866	2.376	.000*
4.	In Marital Union	-2.717	-.238	.788	.000*
5.	Sex (male)	-2.876	.059	1.060	.000*
6.	Age (ref 45+)	-3.735			
	15-24		1.136	3.115	.000*
	25-34		2.129	8.405	.000*
	35-44		1.016	2.763	.000*
7.	Region (north)	-2.863	2.203	9.054	.000*
8.	Status (ref non-aboriginal)	-2.863			
	Metis & nonstatus Indian		.892	2.441	.000*
	Inuit & status Indian		.476	1.610	.000*

* P≤.01
**P≤.05

TABLE 7.12
LOGISTIC REGRESSION OF INCIDENCE OF LOCAL MOBILITY

Independent Variables	b	exp(b)	Significance
Professional Occupation	.104	1.109	.000*
Income (ref low income)			
medium income	-.613	.542	.000*
high income	-1.054	.349	.000*
Education (ref < high school)			
high school	.001	1.001	.918
post-secondary	.157	1.170	.000*
In Marital Union	-.003	.997	.768
Sex (male)	-.020	.980	.012**
Age (ref 45+)			
15-24	.823	2.278	.000*
25-34	1.762	5.822	.000*
35-44	.790	2.204	.000*
Region (north)	.585	1.795	.000*
Status (ref non-aboriginal)			
Metis & nonstatus Indian	.428	1.534	.000*
Inuit & status Indian	.090	1.094	.060
Status X Region			
Metis & NonstatusXRegion	-.415	.660	.182
Inuit&statusXRegion	-.022	.978	.879
Constant	-1.014		
Initial L^2 (baseline)	421247.813		
-2 Log Likelihood	383619.062		
Model χ^2 Improvement	37628.751	d.f. = 15	

* P≤.01
**P≤.05

TABLE 7.13
LOGISTIC REGRESSION OF INCIDENCE OF INTRA-PROVINCIAL MOBILITY

Independent Variables	b	exp(b)	Significance
Professional Occupation	.206	1.228	.000*
Income (ref low income)			
medium income	-.690	.502	.000*
high income	-1.133	.322	.000*
Education (ref < high school)			
high school	.083	1.086	.000*
post-secondary	.471	1.602	.000*
In Marital Union	.353	1.424	.000*
Sex (male)	.031	1.032	.001*
Age (ref 45+)			
15-24	1.282	3.603	.000*
25-34	1.898	6.671	.000*
35-44	.721	2.056	.000*
Region (north)	-.309	.734	.029**
Status (ref non-aboriginal)			
Metis & nonstatus Indian	.429	1.536	.000*
Inuit & status Indian	-.109	.897	.090
Status X Region			
Metis & NonstatusXRegion	-1.092	.335	.093
Inuit&statusXRegion	.333	1.395	.128
Constant	-2.079		
Initial L^2 (baseline)	308268.818		
-2 Log Likelihood	277280.748		
Model χ^2 Improvement	30988.070	d.f. = 15	

* P≤.01
**P≤.05

TABLE 7.14
LOGISTIC REGRESSION OF INCIDENCE OF INTER-PROVINCIAL MIGRATION

Independent Variables	b	exp(b)	Significance
Professional Occupation	.249	1.283	.000*
Income (ref low income)			
medium income	-.830	.436	.000*
high income	-1.304	.271	.000*
Education (ref < high school)			
high school	.032	1.033	.325
post-secondary	.664	1.943	.000*
In Marital Union	.204	1.226	.000*
Sex (male)	.109	1.115	.000*
Age (ref 45+)			
15-24	1.471	4.354	.000*
25-34	2.026	7.586	.000*
35-44	.859	2.362	.000*
Region (north)	2.633	13.922	.000*
Status (ref non-aboriginal)			
Metis & nonstatus Indian	.814	2.257	.000*
Inuit & status Indian	.119	1.126	.266
Status X Region			
Metis & NonstatusXRegion	-2.158	.116	.000*
Inuit&statusXRegion	-2.513	.081	.000*
Constant	-3.589		
Initial L^2 (baseline)	118035.749		
-2 Log Likelihood	105613.370		
Model χ^2 Improvement	12422.379	d.f. = 15	

* P≤.01
**P≤.05

TABLE 7.15
Aboriginal Status Group by Type of Mobility: Northern Sample

Type of move	Non-aboriginal	Metis & non-status Indian	Inuit & status Indian	Total n
Local move	277	27	280	584
Intraprovincial move	71	4	71	146
Interprovincial move	340	9	21	370
Total n	688	40	372	1100

TABLE 7.16
Aboriginal Status Group by Type of Mobility: Southern Sample

Type of move	Non-aboriginal	Metis & non-status Indian	Inuit & status Indian	Total n
Local move	137864	1703	2909	142476
Intraprovincial move	82104	860	1471	84435
Interprovincial move	20016	299	397	20712
Total n	239984	2862	4777	247623

TABLE 7.17
LOGISTIC REGRESSION OF INCIDENCE OF MOBILITY

Independent Variables	b	exp(b)	Significance
Professional Occupation	.142	1.153	.000*
Income (ref low income)			
medium income	-.645	.525	.000*
high income	-1.076	.341	.000*
Education (ref < high school)			
high school	.036	1.037	.001*
post-secondary	.287	1.332	.000*
In Marital Union	.074	1.077	.000*
Sex (male)	.008	1.008	.240
Age (ref 45+)			
15-24	.949	2.584	.000*
25-34	1.811	6.119	.000*
35-44	.775	2.170	.000*
Region (north)	.894	2.444	.000*
Aboriginal Status	.208	1.231	.000*
AboriginalXRegion	-.652	.521	.000*
Constant	-.636		
Initial L^2 (baseline)	572817.439		
-2 Log Likelihood	517108.652		
Model χ^2 Improvement	55708.787	d.f. = 13	

* P≤.01
**P≤.05